



THE WORLD OF BOOKS

TEACHING ELEMENTARY READING

BY

Miles A. Tinker

University of Minnesota



NEW YORK

APPLETON-CENTURY-CROFTS, INC.

COPYRIGHT, 1952, BY

APPLETON-CENTURY-CROFTS, INC.

All rights reserved. This book, or parts thereof, must not be reproduced in any form without permission of the publisher.

557-4

Preface

Teaching children to read is one of the primary responsibilities of the elementary school. Children need to read well so that they may adjust effectively and happily to a multitude of situations, for reading achievement is associated with social and personal adjustment as well as with scholastic success. To help children get a good start in reading and to promote continued growth in proficiency requires skillful instruction. This book is written to foster improved understanding and better methods of teaching reading.

The aim is to present a clear, simple, and straightforward exposition of the principles and practices underlying sound reading instruction. Interpretations are based upon research findings and experience derived from good classroom practice. The materials are organized to provide the teacher-in-training and the teacher-in-service with a thorough understanding of the teaching of reading in the elementary school.

In general, our discussions have been confined to basic principles and teaching practices with illustrative examples. The specific steps in any program of reading instruction will vary somewhat according to the training of the teacher, the policies of the particular school and the series of basic readers employed. Detailed suggestions and outlines of precise procedures, including illustrative lessons and sample exercises, are given in teacher handbooks. Also, in the teacher's guides or manuals which accompany basic readers there are complete specifications for teaching the basic skills of these core materials. Teachers will profit by careful study of these handbooks and manuals.

In summarizing and interpreting data, we have sought to be direct, practical, and brief. Exhaustive citations are avoided although references to more complete bibliographies and summaries are given. Much of the literature on reading has been discussed in textbooks. In certain instances, what we believe to be the best statements of principles or practices made by other writers have been cited.

The primary emphasis in this text is upon what pupils need in a developmental program of reading instruction. Consequently, we have put much stress upon adjusting teaching to individual differences in ability while promoting steady growth of reading proficiency. The best opportunity for learning will occur only when the strengths and weaknesses of each child are known and corresponding adjustments are made in teaching.

The present text proposes no revolutionary methods of reading instruction. By means of his evaluation and selection of what he believes to be the best principles and practices in the field the writer attempts to present a well-balanced program of teaching developmental reading in the elementary school. This balance is achieved by appropriate emphasis on oral and silent reading, on the various techniques of word recognition, on development of the basic and the special reading skills, on use of basic and supplementary materials and on whatever else should find a place in the total pattern of instruction.

The book embodies departures from the traditional structure of texts in the field. The developmental aspects of reading have been treated in a series of separate chapters which clarify the rôles played by word recognition, vocabulary growth, development of comprehension, and so on. Special chapters are devoted to remedial reading in the classroom, adjusting instruction to individual differences, and materials for reading.

Many persons have contributed directly or indirectly to this volume and a multitude of research reports and systematic writings in the field have inspired particular features in it. My personal association with Dr. Guy L. Bond and Dr. Walter W. Cook has been a constant source of stimulation and encouragement. Teachers-in-training and teachers-in-service while in the writer's classes

have shared with me the fruits of their experience. Grateful acknowledgment is made to the teaching staff at Guttersen School, St. Paul, Minnesota, for coöperation in obtaining the pictures in this book. We are also grateful to Dr. E. W. Dolch and the Garrard Press for permission to reproduce word lists from *Problems in Reading*.

The writer is especially indebted to Dr. R. M. Elliott for his detailed editorial suggestions for revision of the manuscript.

M. A. T.

Contents

PREFACE	v
I. INTRODUCTION	1
II. NATURE OF READING READINESS	22
III. DETERMINING READINESS FOR READING	39
IV. THE DEVELOPMENT OF READING READINESS	57
V. READING IN GRADE ONE	77
VI. READING IN GRADE ONE (<i>Continued</i>)	96
VII. READING IN GRADE ONE (<i>Continued</i>)	114
VIII. DEVELOPMENT OF WORD RECOGNITION	129
IX. DEVELOPMENT OF WORD MEANINGS	156
X. DEVELOPMENT OF COMPREHENSION	172
XI. ADJUSTING INSTRUCTION TO INDIVIDUAL DIFFER- ENCES	194
XII. REMEDIAL READING IN THE CLASSROOM	207
XIII. GROWTH IN READING IN GRADES TWO AND THREE	221
XIV. READING IN GRADES FOUR, FIVE, AND SIX	242
XV. READING IN GRADES FOUR, FIVE, AND SIX (<i>Con- tinued</i>)	250
XVI. READING INTERESTS AND TASTES	264
XVII. APPRAISAL OF GROWTH IN READING	283
XVIII. APPRAISAL OF GROWTH IN READING (<i>Continued</i>)	297
XIX. MATERIALS FOR READING	318
BIBLIOGRAPHY	331
INDEX	343

TEACHING ELEMENTARY READING

CHAPTER I

Introduction

The Importance of Reading

To know how to read is essential, in modern life, for anyone who wishes to make a good adjustment in both his work and his recreation. Printed and written matter constitute an indispensable avenue of communication, for ours is a reading society. Witness the tremendous quantities of reading material made available in the form of magazines, daily and weekly newspapers, books, pamphlets, and the letters we receive. In addition, although hardly on the same level, there are timetables, billboard, car-card and store window advertisements, highway and street signs. To these are added the printing on all packaged merchandise and price tags on grocery shelves, in show cases and on dry goods. One does few things during a day's activities without being required to do some reading in order to do them well.

Reading in daily life activities

The need for reading appears in all walks of life. The housewife reads recipes, directions for making an apron, and for defrosting a refrigerator as well as instructions for the use of an increasing number of new appliances and products. The machinist reads specifications for any new operation. Even the farmer, if he wishes to be efficient and well informed on agriculture, must read his farm journals and pamphlets from his state agricultural school. One might go on through almost any other occupation and note similar needs. Many occupational opportunities are denied the non-reader,

many are beyond the capacity of a person whose reading skills are undeveloped.

To these uses of reading may be added the values of recreational and educational reading. For many people, reading is a highly favored form of recreation. The reading may be for sheer enjoyment, or it may serve as a respite from some of the sterner realities of life. Inability to read well deprives one of many recreational opportunities. The person who wishes to keep adequately informed about either local, national, or international affairs must do considerable reading. Any sound decision requires a background of information, and attitudes depend to a large degree upon wide reading. To know the complex world one lives in, it is necessary to do considerable reading. And contributions of the past come to us mainly through reading. Without reading one can only be provincial. There is more reading done now than ever before even though there are many competing forms of communication such as radio, television, and the movies.

Reading in school

Educational research workers recognize the importance of reading. From 1930-1940, the average number of published investigations in reading was over 60 per year, and from 1940-1945, it was over 100 per year (Traxler and others: 180, 181).^{*} The men and women who run our schools recognize the importance of reading and devote large amounts of time, effort, and materials to the teaching of reading in the elementary school. It has an important place in nearly every phase of school work. Unless the child acquires a certain facility in reading, his educational progress is blocked. If one were to separate out from the curriculum the one most essential skill, it would be the ability to read with understanding.

In the modern school much more reading is required than in the past. More and more the pupil must be a skillful reader to succeed in the subject matter fields. According to Strang (163), 80 to 90 per cent of all study activities in typical high schools require read-

^{*} Numbers in parentheses refer to titles in bibliography at end of book.

ing. Bond (12) has demonstrated the pupil's need of adequate reading ability in the ninth grade. A significant relation was found between general reading comprehension and achievement in each of the different content subjects except mathematics. The situation is similar just prior to high school. A study by Lee (118) revealed the dependence of general scholarship upon reading in the upper elementary grades. The results of her study indicate that satisfactory work in grades four, five, and six requires a minimum of low fourth-grade reading ability. Her careful study eliminated any possible influence of intelligence as such, as it was her purpose to discover how necessary reading skill is. It is well established that failures in school by pupils of at least normal intelligence are more often due to reading disability than to any other single cause. To learn adequately one must read well.

Although skillful teaching of reading is of highest importance in the primary grades, it is also of great importance in the upper grades. Mastery of new subject matter requires new reading skills. Few pupils gain adequate mastery of these new skills through incidental learning. Continued guidance is necessary for continued development of reading skills in the upper grades, and even in high school and college for that matter.

Reading and adjustment

Adequate growth in reading is necessary if satisfactory personal adjustment is to be maintained. Emotional disturbances are likely to accompany reading disability. Although personality maladjustment sometimes precedes failure in reading, more often the maladjustment is due to frustration in the learning situation. The need of successful achievement is fundamental in all children. When there is severe reading retardation, personality development is likely to be distorted. The situation may be aggravated by ridicule of other children both in the classroom and out, together with an unsympathetic attitude on the part of the teacher and pressure from parents. The frustration due to continued failure in reading may manifest itself in any one of several ways. The child may compensate for his feeling of inferiority by becoming a "problem child" in the classroom. He may become inattentive, or create disturb-

ances. He may play truant and exhibit bullying and blustering behavior. Or he may retire from active participation in school and play activities and temporarily gain the satisfaction he desires through daydreaming. The child who does not achieve success in reading tends to feel deeply discouraged, to be irritable, and to worry a lot. Such children tend to hate any person or thing connected with the reading situation. Gates (57) presents evidence that in certain instances failure in reading may be a contributing cause of juvenile delinquency as well as various other kinds of antisocial behavior. In general, a reading disability case is almost always a personality case.

Reading should contribute to the development of desirable personal and social understandings, attitudes, and patterns of behavior. This was the theme of the 1947 University of Chicago Conference on reading under the supervision of Gray (82). Although great progress has been made in providing suitable reading materials and in adjusting teaching to individual needs, Gray states that many children and young people fail to acquire "the understandings, and the patterns of behavior essential to their personal welfare and to social progress" (p. 1). He also emphasizes the need for greater competence in reading. If reading is to contribute to personal and social development, there must be rapid improvement in "ability to engage in self-reliant, discriminating interpretation of what is read." (p. 3).

The kind of reading program which best meets personal and social needs has been ably presented by Smith (154). There must be first a clear definition of needs, both in relation to the personal growth of the individual and his adjustment to, and participation in the social community. Reading can aid young people not only to estimate their own abilities and limitations, but also to understand motives of human conduct in themselves and in others, and to appreciate the varied influences that constantly play upon them as they make their adjustments. Books can furnish information *necessary to meet life's challenges and to understand its problems*. Whether it is information on how to feed a pet properly, or an adolescent's concern with the "proper thing" in etiquette, the needed facts may be gained by reading. Reading of material which

is almost universally available today will extend knowledge of and increase sympathy for peoples with culture and backgrounds strikingly different from ours. An understanding of the basic causes of dissension among men and nations may come from such critical and informative reading. Thus one becomes better able to understand his own and others' prejudices. Such a program implies well-trained teachers who are not only thoroughly familiar with new and old books but who also clearly understand the rôle of reading in the lives of developing children. Furthermore there must be clearly defined goals of instruction, adequate guidance of pupils, and a wealth of materials in both classroom and library.

Reading to satisfy needs

Even before the child enters school he begins to develop a need for reading. He looks at pictures while his parents read to him the story told by the pictures. He hears nursery rhymes and perhaps loves some of them. And he has discovered that stories come from books, so naturally he wants to find them there himself. As he grows older he continues to gain in experience and verbal language facility. After acquiring many words, the child begins to put words into sentences and to use the various parts of speech. He senses the significance of language by getting results when he asks for things. Spoken language becomes a very useful tool. In the kindergarten, while he is being prepared for reading, the need for reading becomes more intense. The child comes to recognize his name on his box of materials. He wants to know in more detail what pictures say. He is becoming aware that symbols stand for meanings. When the child actually gains some skill in reading, the needs multiply. The need may be merely to follow the sequence of events in a story. Or it may be to find out more about dogs. Jane is very fond of dogs, so she reads any and every kind of material on dogs. Edwin, a budding electrician, has a drive to get information on electrical equipment of all sorts. Elliott seeks information about stamps, since he is a collector. And so it goes from one need to another. Where there is a need to satisfy, there is a strong motivation to gain the relevant information to satisfy that need.

It is only after a certain proficiency is acquired, the degree of

which may vary from child to child, that reading becomes *fun in itself* as almost any mastered skill does. A habit may greatly facilitate motivation. For instance, a boy who had to be driven to learn his multiplication tables, later loved his geometry and eventually became an engineer. In fact, any good skill may become not only effortless but also *fun*.

Many needs of the child can be met through reading activities. Where there is a felt need that may be met by reading, and there is proper guidance, the child will read. Little worthwhile learning occurs that is not motivated through needs. The emphasis now placed upon reading to learn, rather than upon learning to read, is merely another way of saying that one reads to satisfy needs. The needs for new experience and for gaining understanding are, in rudimentary form, part of the normal man's native equipment.

Necessity of guidance in reading

Needs that are to be satisfied through reading activities are great in number and varied in kind. They may vary from Mary's desire to find out how to make a valentine, to John's task of making a critical analysis of the claims made by two opposing political candidates. It is not an easy task to develop all the complex skills needed by young readers at successive stages of development. Gans (54) points out that skillful guidance by teachers who have clear concepts of the major reading goals is needed if the pupil is to learn when to read, what to read, to read properly the particular kind of material selected, to appraise it critically, and to make adequate use of the ideas gained in the reading. Thus in so many respects the rôle of the teacher in guiding children to satisfy needs through reading is of the utmost importance.

The Nature of Reading

Reading is one of the so-called language arts in the modern school curriculum. Customarily grouped as language arts are speaking, writing, listening, and reading. Although these language arts should be, and often are, coördinated in instruction, it is the purpose of this book to deal only with the teaching of reading with

references to the other language arts as occasion arises. No one can deny that it is essential that the child develop proficiency in the language arts if he is to communicate effectively with others. As the child grows older, more and more communication can and should be by means of reading printed and written material. The effectiveness of such communication depends upon the reading skills of the individual.

Reading a form of communication

Certain important characteristics of communication by means of written and printed language are emphasized by McKee (126). Words, the product of writing, are only symbols which stand for meanings intended by the writer. To recognize the words as words in printed language is not enough. To read adequately one must *grasp the meanings intended by the writer. The writer can only present symbols that stand for meaning.* These symbols serve as cues to the reader who must organize an understanding of what is meant. This may be easy or it may be very difficult. The completeness of understanding achieved by the reader when presented with a group of printed symbols varies. It is seldom 100 per cent of what the writer intends. It is important, nevertheless, that the reader achieve a degree of understanding adequate for his thinking *and his choice of action in a particular situation.*

Changing concepts of reading in relation to current practice in teaching

The level represented by basic reading instruction in 100 representative contemporary (1948) school rooms was studied by Gray (83a). The practice in about 30 per cent of the schools conformed to the theory and practice of teaching reading in 1900. This teaching involved to a large extent an emphasis upon mastery of the mechanics of word recognition. Also stressed was the teaching of fluent and mechanically accurate oral reading.

The importance and use of silent reading had increased markedly between 1910 and 1920. This led to teaching of the attitudes and skills concerned with clear comprehension in reading and with rapid silent reading. By 1925 (140b) the major problems were

Learning to read and reading to learn

Pupils in present-day schools do more reading than ever before. Both an expanding curriculum and changing methods of instruction have increased the need for a greater amount of reading and a wider variety of reading. Reading is both a subject of instruction and a tool employed in studying in the subject matter fields. During recent years the emphasis has changed from learning to read to reading to learn. The extreme view in some quarters is that learning to read has no place in the modern school. The present writer tends to agree with Harris (91) that to say this is not wise. The skillful teaching of reading is of the highest importance in the primary grades. And it is still important in the upper grades where additional skills are required to cope successfully with new reading situations. Incidental learning of these new skills required for adequate progress in learning occurs with relatively few pupils. The additional skills should be taught as they are needed. Furthermore, *they should be taught in context*. For example, the special skills needed for reading geography should be taught with geography context. In this way, the emphasis is on reading as a tool, rather than reading for its own sake. Even so, it is teaching of reading. This guidance is essential if effective learning is to occur. It is the most satisfactory way to promote purposeful, independent reading. Reading to learn, however, need not be delayed until the upper grades. Teachers at all grade levels are directly responsible for the systematic development of reading ability as an aid to learning.

Definition of reading

Concepts concerning the nature of reading, as noted above, have been changing during the past 50 years. Although the writers of texts and journal articles pretty much keep up to date with these changing concepts, teaching of reading does not. While reading at the present time is undoubtedly taught better in some schools than in the past, the instruction is still far from adequate in too many schools. As pointed out by Gans (54) the teacher's efforts to develop in some children the word recognition techniques necessary for some independence in reading appropriate materials

become extremely time consuming. Consequently, the real reason for the acquisition of such a skill tends to become lost in a mass of drills and lessons. To avoid this, it is highly desirable that the teacher in her daily work with pupils be guided by a clear understanding of the larger purposes of reading.

What has been taking place in the last 50 years is the transition from the concept of reading as a relatively simple process to the present view that it is extremely complex and made up of a large number of relatively unique skills and techniques. The earlier and very narrow view placed emphasis upon developing perfection in the mechanics of reading such as techniques of word recognition, phrasing, and proper eye movements. Heavy stress was placed upon oral reading. This emphasis upon mechanical perfection tended to result in neglect of the thinking activity involved in reading. Although word recognition, phrasing, and the like are important, the adequacy of any program that does not go beyond the development of the mechanics of reading may surely be questioned. Otherwise, since the mechanics of reading should be mastered relatively early, there would be no reason for further instruction in reading after the mechanics were mastered. But, as emphasized by Harrison (92), scientific evidence, as well as experience, indicate that when the mechanics of reading are mastered, reading as a tool for learning may be ineffective unless the thinking side of reading is achieved.

Some have held that reading is the getting of meaning from the printed page. But as pointed out by McKee (126), to say only this is misleading. There are no meanings on the printed page. There are only symbols which stand for meanings. Printed symbols merely stimulate one to recall familiar concepts. All that the identification or recognition of a word or group of words does is to stimulate recall or the construction of meanings. The meaning comes from recalling and manipulating concepts already possessed by the reader, not from the symbols as such. If the reader already possesses concepts, they are readily recalled. But if the concept is new, manipulation of related materials and meanings in the construction of the concept approaches problem solving. It would appear then that reading in the full sense involves reasoning and

is, therefore, a very complex process. It is much more than a mere recognition of printed or written symbols. It involves all the complex mental processes involved in the interpretation of concepts and meanings aroused by recognition of printed symbols.

The definition of reading here adopted may be summed up as follows: Reading involves the recognition of printed or written symbols which serve as stimuli for the recall of meanings built up through past experience, and the construction of new meanings through manipulation of concepts already possessed by the reader. The resulting meanings are organized into thought processes according to the clearly defined purposes of the reader. Such an organization leads to modified behavior, or else leads to new behavior which takes its place, either in personal or in social development.

Reading Instruction

A child, during his pre-school years and in the kindergarten, has acquired a background of experience that is in part embodied in an understanding vocabulary and a speaking vocabulary. He both understands and uses sentences. There are of course marked differences between individuals in respect to both the experience they encounter and the language they acquire.

Steps in learning to read

In the beginning, learning to read is learning that symbols (queer, senseless-looking marks to the child) stand for speech. He learns to say the word that stands for a particular printed or written mark. Whether the child speaks the word to himself or out loud, reading at this stage means saying the correct word. When the correct words are spoken, they occur in a familiar sequence that has meaning for him because of his previous experience in understanding and using speech. In other words, the essential basis for learning to read is an adequate background of speaking and understanding of speech sounds. So the first step in learning to read is to begin to learn what printed symbols stand for what spoken words. The task of the child who is beginning to learn to

read is far more difficult than many teachers realize. Skillful teaching is necessary if word recognition is to develop at an adequate pace. During this first stage in reading, skill in word recognition has a continuous development, and as time goes on, occurs at a faster pace. The child's list of sight words grows. Soon familiar phrases are recognized as meaningful units. In addition to the accumulation of sight words, the child gradually learns to work out words by their sounds so that he less frequently has to be told what a new word says. And gradually there is less and less need for speaking the words aloud. As the reading becomes inaudible, lip and tongue movements tend to cease. The more skillful readers tend to have little inner speech while reading.

Actually it is not possible to set off sharply distinguished stages of reading development. The improvement is a continuing sequence with each new skill being built upon previous learning and coördinated with it. With progress in reading beyond the beginning stage, skill in recognition, if properly mastered, becomes largely automatic so that the reader's attention may be largely devoted to understanding, reflection, and evaluation. As the material becomes more complex, concepts outside the child's language and experience are encountered. To cope with these requires an increased vocabulary and increased ability to handle the relationships involved in the more complex forms of expression.

As development continues, reading is engaged in for many different purposes, each corresponding to some need. There is a greater and greater amount of the study type of reading. To become a good reader the child now has to become a versatile reader. This means that he must by degrees come to know when and how to use skimming to locate a specific item of information, when to read rapidly to get the general idea or to enjoy the plot of a story, and when to read carefully for accurate study of details. *The truly versatile reader is not common, but he is the kind of reader we wish to develop.*

As the child is developing the various skills necessary to read effectively the different kinds of materials for various needs and purposes, he learns to interpret, to evaluate, and to reflect upon the meanings encountered. This grows out of the demand that he

understand what is read, in order to achieve personal and social adjustments.

Throughout the successive "levels" in this process there is opportunity for developing varied reading interests and for improving the quality of reading tastes.

Progress in reading is developmental and continuous. Each stage prepares for what is coming next. The teaching of the new follows naturally what has been learned before. And the steps are overlapping since at the higher levels there is an extension and continued refinement of abilities that have been taught earlier. To these are added new skills and techniques as they are needed. Developmental reading is largely a matter of making sure that there is adequate reading readiness for meeting each step in the reading program.

Adapting reading instruction to individuals

As is true with any skill, there are marked differences in ability to learn to read. Even with the best of teaching, any aspect of reading performance at any grade level will reveal wide individual differences. Thus, if a third-grade teacher is to provide adequately for the needs of her pupils, she cannot teach only third-grade reading. She must be ready to teach first-, second-, third-, and perhaps fifth- and sixth-grade reading. Nor can she be alert to detect only limitations in school ability. She must also be responsive to individual needs in interest patterns, stages in emotional maturity, and tastes as well as specific deficiencies and difficulties in learning such as failure to recognize words, inadequate vocabulary, and the like.

In every aspect of reading, some children learn more slowly or more rapidly than others. The resulting differences must be appraised and adjusted to by the teacher if the needs of the individual pupils are to be adequately cared for. To be effective for each and every child reading instruction must be individualized at all levels. There can be no adequate program of developmental reading without such individualized instruction. Furthermore, failure to adjust instruction and materials to individual abilities and needs frequently results in reading disability. Nevertheless, a

well organized program of developmental instruction in elementary classes will achieve satisfactory progress in acquiring effective reading skills.

Oral and silent reading

The amount of emphasis upon oral and silent reading has varied a great deal. At the beginning of this century the stress was on oral reading. Much effort was expended to develop skillful oral readers with a consequent overemphasis upon mechanics. This was followed in the 1920's by an overweighting of silent and neglect of oral reading. This has now run its course and the tendency among many writers is to advocate a balanced program which gives adequate emphasis to both oral and silent reading.

In Buswell's comparison (22) of progress in reading, when beginning reading was taught either by the oral or by the non-oral method, it was found that the reading of those taught by the non-oral method was as good as the reading of those taught by the oral method. At neither the third nor the sixth grade were there significant differences in reading performance. In the non-oral groups however, there were significantly fewer children with lip-movements and more who skipped a semester. Buswell advocates that oral reading be delayed until the basic habit of silent reading has been established. The evidence does not seem to us to justify such a procedure. The view taken here is that a balanced program of silent and oral reading be employed, starting in Grade I. Oral reading seems well fitted to the young child's habits of responding. Advantage should be taken of the fact that the child has had six years of development in oral language. Silent reading can be introduced along with the oral to fit the particular reading activity engaged in by the child. There need be no conflict between oral and silent reading. Each has an important place in the development of a well balanced reading program.

Comprehension and speed in reading

During recent years stress has been placed upon developing speed of reading. Frequently efforts to improve speed of reading have taken the form of training eye movements by means of

mechanical and other devices of one kind or another (176). An emphasis upon increasing rate of reading is revealed in many reports (90, 120, 152). In the first place, experimental evidence reveals that the pacing of eye movements by means of elaborate devices is not necessary to improve speed of reading. In fact, there is no adequate evidence that training of eye movements as such improves reading (23, 186). Well motivated reading achieves the same result. Too often the training of eye movements, or other special exercises for speeding up reading, becomes a ritual, an end in itself, and tends toward an overemphasis upon mechanics of reading. This leads to the sacrifice of adequate attention to the more important processes of perception, apprehension, and assimilation as these are needed for comprehension.

Comprehension is the ultimate goal of all reading. Only when there is clear understanding is there adequate apprehension of the concepts involved. And only then is there recall of meanings and organization of meanings that can be manipulated in the thought processes according to the purpose of the reader. In other words, the main stress in teaching reading should be the development of adequate comprehension.

While it is true that there should not be dawdling in reading, emphasis upon speed as such is ill advised. To achieve an adequate rate of reading, special drills to improve speed are seldom necessary, especially in the elementary grades. When speed is strictly subordinated to the more important purposes in reading, students will develop the ability to read as fast or faster than when the development of fast reading is the primary aim. And they will read more effectively in the content fields.

Furthermore, rate of reading should vary according to the purpose of the reading and according to the difficulty and nature of the material. Some materials should be read rapidly, others slowly and even reread if the reading is to be efficient. The able reader is the versatile reader, the one who changes his pace to fit the requirements of the materials and the reading purpose. In fact, rapid reading has no practical significance in itself except that sometimes the task calls for expedition while at other times slow reading is in harmony with the requirements of the specific task.

And the ability to vary speeds will be part of the repertory of the versatile reader. So the emphasis should be upon efficient rather than upon rapid reading per se. Ease and facility which accompanies clear comprehension in reading will naturally result in an adequate rate of reading. This does not mean that there should be no training to improve rate of reading. Occasionally, pupils should be encouraged to work rapidly with the understanding that comprehension is not to be sacrificed. Ordinarily a clearly defined purpose and good motivation will result in a rate of reading adapted to the particular situation.

Rate of reading is significantly correlated with degree of comprehension (175). The fast reader tends to understand more of what he reads. This must not be interpreted that all material should be read rapidly, nor that special drills should be instituted to speed up reading. Just as the efficient reader will read a novel faster than the inefficient reader, the former will read an assignment in chemistry faster than the latter. In other words, fast reading in itself does not bring greater comprehension, but efficiency in reading due to clear apprehension and assimilation of the concepts does lead to faster reading. The cart must not be put before the horse.

The reader we wish to develop

With adequate guidance, the child who has successfully finished the sixth grade should have become a fairly skillful and mature reader. If our aims have been fulfilled, we may expect the following accomplishments:

The essential techniques of word identification and recognition will have been mastered. Word forms, context clues, structural analysis, phonetic analysis and use of the dictionary are all employed appropriately and as needed. Their use has become so automatic or habitual that attention may be devoted largely to the thought of the passage being read.

The vocabulary will be extensive. Clear and concise knowledge of words means adequate concepts, essentials in thoughtful and critical reading. The child will not only possess extensive word

knowledge, but he also will have acquired techniques for independently extending his vocabulary and consequently for the development of new concepts.

Comprehension will be effective. In addition to the understanding of words, sentences, and paragraphs, there should be an adequate mastery of such skills as skimming, apprehending details, following directions, and drawing conclusions. These are all aspects of the process of comprehension.

Proficiency in the skills basic to study will be necessary to cope adequately with the reading tasks encountered in the intermediate and higher grades as a part of the courses in various subjects. Sources of information and techniques must be mastered so that the child can effectively find relevant data and evaluate them.

The child will be a versatile reader. He will know when and how to change his pace to fit the material to be read and the purpose for which the reading is being done. He will know that effective reading is rapid reading in some situations and slow, analytical reading in others.

The attitude of demanding of himself that he understand what has been read will have been acquired. He will not be satisfied with inadequate or partial understanding since he will be reading with a purpose which he recognizes and accepts. He knows why he is reading. So his immediate intent is to secure adequate understanding.

Because the child holds himself to the demand that he understand what is being read, he will have learned to interpret, to evaluate and to reflect upon what he reads. Reading has become a thinking activity.

Reading interests should be large and varied. The drive arising from the child's interests is especially potent. So the child has learned how to employ reading to satisfy needs that are in line with his interests. But beyond these, guidance of the teacher has led to an expansion and diversification of reading interests into new ones.

Taste and appreciation in reading will have developed along desirable lines. Although home environment, availability of mate-

rials and certain other extracurricular activities may work for development of improved reading tastes and appreciation, the rôle of the teacher in developing "good taste" is of high importance.

Skill in oral reading should have reached a level that permits the child to give pleasure to others by his reading aloud. This means the achieving of good phrasing, proper inflection of the voice, clear diction, accurate pronunciation and the ability to achieve emotional harmony with the contents of what is being read.

Independence in the use of reading to satisfy whatever needs the child feels will have been well developed. It may be in terms of leisure reading for enjoyment, reading to gain needed information, reading for personal adjustment, or reading for social adjustment. Independence of this kind puts to use one's proficiency in reading.

Finally, the child will have perfected the foundations essential for building the new skills which will be needed in higher grades. Even the best readers will not have achieved by the end of the sixth grade all the skills needed for some of the specialized reading required in high school and college. But if progress has been satisfactory, they will be ready to add these skills. There will be, of course, the need for further guidance in reading at the higher levels in order to achieve efficient progress toward still more ambitious goals.

The degree to which the pupil will achieve the reading proficiency outlined in our aims depends upon many things. Intellectual level places a definite limit upon reading capacity. Personal adjustment of the pupil influences progress in any learning. In general, a factor of great significance in shaping progress in reading proficiency is the contribution of the teacher. She must be well trained and should at all times keep in mind the major goals to be achieved. Another important item, of course, is availability of adequate materials. With good materials and administrative support, the teachers now being trained will teach reading better than it has been taught in the past.

Plan of this book

This book aims to present a discussion of the teaching of reading in the elementary school. The program is developmental. With effective teaching there should be continuous progress in learning to read, by a natural transition from one level to the next. What is learned at one level becomes a foundation for what comes next. When the average child finishes the sixth grade he should have acquired the foundations for mature reading.

Chapters II through VII are devoted to reading readiness and the beginning and development of reading through the first grade. The relative importance of this early period of instruction justifies the heavy emphasis given to it.

Chapters VIII through XII cover various developmental phases of reading instruction that are relevant to all grades in the elementary school. Separate chapters are devoted to word recognition, vocabulary, comprehension, individual differences and remedial reading. Although treated separately, these topics are inter-related and overlap each other in the teaching program. The details in these chapters are referred to at appropriate places in the other chapters.

Chapters XIII through XV are concerned with reading instruction in grades two through six. Although initial consideration might place these chapters directly after the discussion of reading in grade one, it is actually more appropriate to cover the details of word recognition, vocabulary development, and so forth first. With the present arrangement, the principles discussed in first-grade reading are clarified, and a frame of reference is provided for the discussion of reading instruction in later grades.

The final four chapters deal with reading attitudes, interests, and tastes, with the appraisal of progress in reading, and with the materials for reading. Throughout the book frequent use is made of cross-references. This makes it possible to avoid considerable repetition. For instance, in considering the application of comprehension skills to the reading of materials in the fields of subject matter, the reader is referred to Chapter X for details on the development of the comprehension skills.

Summary

Effective reading is important to the individual for many reasons. It is essential for adequate adjustment in a multitude of everyday life activities as well as for learning in school. More adequate personal and social adjustment may be fostered by satisfactory growth in reading proficiency. Furthermore, many needs of the child are met through reading activities.

Reading as a form of communication is one of the language arts strongly emphasized in modern educational practices. Nevertheless, there is a marked lag between the type of reading instruction we now know is desirable in terms of current needs and what we get in practice.

While the phrase *reading to learn* stands for a desirable new emphasis, there is still need for *learning to read* in so far as this requires skillful teaching of the fundamentals in the primary grades and the specialized skills in the intermediate and higher grades.

Reading, as defined here, is a thinking process. And progress in learning to read is developmental and continuous.

The instructional program in reading should provide for adjustment to individual differences, provide a balance between oral and silent reading, and stress comprehension rather than speed. In general, the aim is to perfect, by the time the child finishes the sixth grade, the foundations that are the essential bases of mature reading.

Selected References

- ADAMS, Fay, GRAY, Lillian, and REESE, Dora, *Teaching children to read*. New York: The Ronald Press Company, 1949, chap. 1.
- BETTS, Emmett A., *Foundations of reading instruction*. New York: American Book Company, 1946, chaps. 1, 6, 7.
- BOND, Guy L., and WAGNER, Eva B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chaps. 1, 2.
- GANS, Roma, *Guiding children's reading through experiences*. New York: Bureau of Publications, Teachers College, Columbia University, 1941, chap. 1.
- GATES, Arthur L., *The improvement of reading*, 3rd ed. New York: The Macmillan Company, 1947, chap. 2.

- HARRIS, Albert J., *How to increase reading ability*, rev. ed. New York: Longmans, Green & Company, 1947, chap. 1.
- McKEE, Paul, *The teaching of reading in the elementary school*. Boston: Houghton Mifflin Company, 1948, chaps. 1, 3.
- RUSSELL, David H., *Children learn to read*. Boston: Ginn and Company, 1949, chap. 4.

CHAPTER II

Nature of Reading Readiness

An alarming number of children fail to make satisfactory progress in learning to read in the first grade. This is not only disappointing to the teacher, but also baffling, because frequently she does not know why a certain child has failed. To the child, trying to learn to read, instead of being a happy experience, too often brings only bitter disappointment and frustration.

Many people still have the notion that any six-year-old child or any child who begins first-grade work is ready to learn to read. Fortunately more and more schools and teachers are coming to recognize that attaining the age of six years does not necessarily signify that the child is ready to read. In fact, Fallon (50) has shown that in some school districts as many as 25 per cent of the children are not ready to begin reading when they enter the first grade. According to Hildreth (98), this estimate is low. The child is ready to begin reading only when he has reached a certain stage of intellectual maturity and has acquired an adequate background of experiences and attitudes. A program developing readiness for reading is needed for many children, and would be profitable for all. Furthermore, the concept of reading readiness is basic to the development of reading ability at all levels, from the kindergarten on. We shall be concerned here with its rôle in the elementary school.

Variation in reading readiness

Great differences among children already exist when they begin school. For example, Jane's parents are professional people who

are conscious of the needs of children at various ages. She is told stories and read to a great deal during her pre-school years. She has numerous picture books, coloring books and cut-out materials. She has learned to use a pencil and crayons for drawing and scissors for cutting out things. More advanced coördination is developed through manipulation of toys, riding a tricycle and dressing dolls. When there are guests, Jane is allowed to mingle *with them for a while and is encouraged to talk with them.* Each summer she is taken on an automobile trip half-way across the country and lives for a few weeks on a farm. Jane, by the age of five has had wide experiences, talks well, and has acquired poise in her contacts with both children and adults. In addition, she has acquired a keen interest in places, people, and animals. She is eager and alert to learn more.

Dick, who arrived at school at the same time, has a very different background. His father is a laborer for the trolley company. The home is small and not well furnished. Neither the father nor the mother are interested in books. Dick has few picture books or toys. He is seldom read to or encouraged to talk about his activities. He has never been outside the city where he lives. Dick is shy and silent in the presence of people outside the family and even with the children of his neighborhood. In general, his experience is very limited in comparison with that of Jane.

These are only extreme examples of variation among children who are placed in the same classroom. Such variations occur in mental development, verbal facility, physical health and development, personal and social adjustment, interest patterns, and information based upon experiences. Adequate guidance in preparing a child for reading must be based upon a knowledge of the level of development and experience background of each child. There are many degrees of readiness among children at the beginning of grade one. Some have already begun to read while others are definitely not prepared to begin reading. The success of the child in learning to read depends to a great extent upon his development and the amount and kind of his earlier learning. After evaluating this background, the teacher provides a program to offset whatever deficiencies in reading readiness she discovers.

Factors influencing reading readiness

Readiness is not an all or none proposition. It is not some one thing the child has or does not have. There are many factors involved in reading readiness. A child may possess any one of these in a trifling and ineffectual degree or much more adequately. The factors affecting readiness for reading tend to be complex and to interact with each other. Frequently these interactions are so intermingled in a total pattern that it is difficult to isolate and evaluate the separate factors in the order of their importance as determiners of reading readiness. Some of them are the result of maturation of the individual's potentialities. Others are acquired abilities that can be improved by training. Certain other factors are intertwined with the emotional adjustment of the individual. The latter, in turn, may be modified in a desirable or an undesirable direction by factors in the child's environment. A detailed summary of studies dealing with reading readiness is presented by Smith (155). Comprehensive evaluations are also presented by Hildreth (98) and by Monroe (129).

A child is ready to read when he has attained a certain stage of mental maturity, and possesses a background of experience and the personal and social adjustment which makes it possible for him to progress at a normal rate in learning to read when exposed to good classroom teaching. For convenience in discussing the factors involved in reading readiness, they will be classified under the following: (1) intelligence; (2) physical factors; (3) experience and language development; and (4) personal and social adjustment.

General Intelligence

To a prominent degree, reading is an intellectual process. Intellectual development, therefore, appears to be an important determinant of reading success. It is a general observation that dullness results in poor reading. Relatively dull children can make some progress in learning to read, but their progress is slow and the level they eventually reach is not high. Furthermore, dull

children are not ready to begin reading as early as children who are intellectually more mature.

Seeking to measure the relationship between mental development and reading ability, Monroe (128) found moderate but not high correlations. The correlation between mental age (maturity) and reading-grade score for elementary school children in regular reading classes was 0.60, for clinic reading cases 0.56, and for special reading cases 0.65. These correlations are in line with other findings. Morphett and Washburne (130), for instance, found correlations of 0.50 to 0.65 between mental age and ability to learn to read. Care must be exercised in interpreting these correlations. While they show that there is a general tendency for children of higher mental age to read better than those of lower mental age, the size of the correlations also indicates that there are many discrepancy cases. That is, some children of lower mental age read relatively well and some of higher mental capacity read relatively poorly. Nevertheless, the correlations do indicate that mental maturity is related to progress in reading. At the same time the correlations reveal that this alone does not insure success.

Mental age and reading instruction

The stage of mental maturity essential for success in beginning reading has been investigated by Morphett and Washburne (130). The relation between progress in learning to read and mental age in the first grade was studied. The essential findings were as follows: Only a few children whose mental ages were below six years made satisfactory progress in reading. As the mental age, measured in months, increased, larger proportions did satisfactory work. At a mental age of six and one-half years and above, three-fourths or more of the children achieved satisfactory reading progress. Only a few children with mental ages between seven and one-half and nine years failed to make satisfactory progress. Frequently we run across the statement, based upon the above findings, that there is a definite minimum mental age necessary for success in first-grade reading. *This lower limit is placed at a mental age of six years by some writers; at six years and six months by others.* Studies by Deputy (37) and by Woods (192) suggest that the minimum

mental age required for success in first-grade reading is six years four months.

To reach a specific mental age, however, does not necessarily insure reading success. Though Harrison (92) considers it safe to state that a child must reach a mental age of at least six years before success in learning to read will be probable, and that the chances for success are much more certain if the mental age is six years six months, we consider that to set an exact requirement of either six years or six years six months is probably not justified. Evidence from a variety of studies shows that children with mental ages less than six years can be taught to read. Gates (59) concluded that, when modern methods of instruction, well adjusted to individual differences, are used, reasonable progress in learning to read can be made by most first-grade children. This does not mean, however, that the most opportune time to teach reading is before the child reaches six or more years in mental age. As a matter of fact, as noted by Harris (91), the evidence is against it. To teach reading at the lower mental ages requires more effort, a greater amount of individualized help, and results in slower progress. And retention of what is learned is likely to be less permanent. In fact there are few or no sound arguments for beginning reading while the child is mentally immature, and many arguments for postponing the reading. Even the postponing of reading instruction for a term or more for all pupils appears to produce favorable results. In such programs, training in reading readiness can be much more adequate. The brighter as well as the less mature children will profit thereby. There are, of course, some administrative difficulties in postponing reading for individuals who are slow learners. Parents of these children do not understand either the reasons for, or the justice of the delay. This, however, is a problem of parent education, and should not be allowed to interfere with organizing the reading program in the most effective manner possible. Furthermore, exposure to the teaching of reading prior to adequate mental development may have unfortunate results. From the viewpoint of the teacher and the school it may turn out to be wasted effort. The relatively immature child does not learn to read

and must be retaught. For the child himself, the effect may be more serious. He has tasted failure, which may be a bitter experience and leave him with a feeling of frustration and a distaste, if not for reading in general, at least for the reading situation in school.

Mental age to begin reading

Summing up, the evidence indicates that it is impossible to set a minimum mental age at which all children will be able to begin learning to read and make satisfactory progress. Too many factors besides intelligence are involved. The accumulated evidence seems to indicate that children with mental ages appreciably below six years should not begin to learn to read in the ordinary classroom situation. If his mental age is at least six years and if other factors to be considered below are favorable, the child can be taught to read, provided the first-grade teacher is going to be alert in recognizing and making adequate adjustments to the individual differences in ability which she will encounter. Most of these children, however, can profit by further preparation for reading while they are attaining somewhat greater intellectual development. According to Gates (59), the mental age necessary for beginning reading will vary with the efficiency of teaching, the materials used, the amount of individualized help, and the adequacy with which special problems are handled. Other things being equal, however, the chances for satisfactory progress in reading are greater, the higher the mental age when the child begins to read.

Chronological age

Chronological age is ordinarily used as a basis of entrance to school for the first time. The child enters kindergarten at about age five and the first grade at about six. Actually chronological age has only a little bearing upon reading readiness. To a slight degree chronological age indicates the amount of experience a child has had. Within limits, the older the child when he enters school, the better his personal adjustment to the school situation. Under no circumstances should chronological age be employed as an indication of readiness to read.

Physical Factors and Discrimination

Except for convenience of discussion, it is unwise to think separately of physical and mental factors for they are to a large degree interdependent. The child functions as a whole. If his physical health is impaired, as by infected tonsils, malnutrition, and the like, he is not ready to direct his attention consistently to learning activities in reading or elsewhere. Physical fatigue, listlessness, inability to see clearly or hear distinctly are all handicaps to the development of adequate motivation toward learning. While correction of physical disabilities does not take the place of instruction, it seems obvious that every child has a right to satisfactory health and physical efficiency. The practice of giving a complete physical examination to every child as he enters school is to be recommended. And at any time that the teacher notes signs of illness or physical difficulties, a medical examination should be recommended. To expect a sick or physically handicapped child to take pleasure in learning is unrealistic. In addition to general health, physical factors that bear an obvious relation to readiness for reading are to be found in the function of vision, hearing, and speech.

Adjusting instruction to physical status

Many physical handicaps do not improve with passage of time. Thus some cases with an appreciable per cent of hearing loss, and certain others with specific types of visual disability cannot be aided by medical procedures or glasses. Gates and Bond (64) have emphasized that in such cases it is not desirable to delay beginning reading. The important thing is to recognize the deficiencies and then to adjust the reading instruction accordingly.

Auditory factors

Auditory ability seems to be an important factor in reading readiness. An appreciable percentage of children, on arrival at school for the first time, have hearing deficiencies severe enough to interfere with learning. An appropriate medical examination will disclose the nature of the difficulty and the degree of hearing loss.

Some of these difficulties can and should be remedied, such as loss of hearing due to stoppage of the outer canal of the ear, closure of the eustachian tube connecting the middle ear with the throat by enlarged adenoids or infection, and certain infections of the middle ear. Immediate medical attention should be given to earache and abscessed ears to prevent permanent damage to hearing by rupture of the eardrum or penetration of the inner ear by the infection. Any permanent loss of hearing should be carefully evaluated and the indicated adjustments in instruction made, that is, the pupil should be seated in a place advantageous for hearing and a method of instruction best adapted to a hard-of-hearing child employed. In this case a greater emphasis should be put upon visual than upon auditory methods.

Hearing deficiencies and speech

The teacher should be aware of certain important implications of hearing deficiencies in children. Adequate development of speech depends somewhat upon clear hearing of speech sounds. So retardation of speech development may be associated with hearing deficiencies. This has a bearing upon reading readiness since success in beginning reading depends a great deal upon facility in speaking. Furthermore, the personal adjustment of a child may be seriously affected by inability to hear satisfactorily.

Auditory discrimination

In addition to adequate acuity of hearing, readiness for reading requires that the child be able to distinguish readily between the sounds of spoken words, especially of those words to which he will be exposed in his reading class. For instance, he should be able to distinguish the spoken sounds of *can* and *cane*; *car* and *care*; *pin* and *pen*; *where* and *bear*; *boat* and *coat*; *bat* and *bad*; and so on. In short, he should have learned that different words may begin with different sounds, end with different sounds, or have different middle sounds. Some children by the time they enter school have developed sufficient auditory discrimination for learning to read, others have not. For the latter, training in auditory discrimination is indicated. Investigation by Durrell, Sullivan,

and Murphy (48) led them to conclude that lack of auditory discrimination is an important factor producing failure in beginning reading. And Hildreth (98) cites experimental evidence which demonstrates the value of training in auditory discrimination for beginning readers. Most children can learn satisfactory auditory discrimination provided their hearing is normal. Inability to discriminate between the sounds of words will result in difficulty with the letter and phonetic sounds needed for adequate phonetic analysis in word identification and recognition.

Visual factors

It is obvious that the child who cannot see details clearly is not ready for reading. Failure to learn to read can be due to visual inadequacy. It is not necessary to describe the various visual defects here. Some are obvious, as cross-eyedness and severe near-sightedness, but others such as astigmatism and certain fusion difficulties are not. Even in those cases, such as slight degrees of muscle imbalance, where clear vision can be achieved by additional but undesirable tension on the muscles of the eye, there will be eyestrain. Any eyestrain is frequently accompanied by headaches and perhaps digestive disturbances which prevent the continued visual attention necessary in learning to read. Every teacher should know the visual status of each child in her room. If classroom behavior (as watering eyes, holding a book unnaturally close to eyes) or screening tests by the school nurse indicate possible visual difficulty, the child should be sent to an eye specialist for examination. Difficulties that can be remedied by glasses or by special exercises should be taken care of. Where inefficient vision cannot be remedied, the teaching should be adapted to the child, as by emphasizing auditory rather than visual methods of instruction.

Need of visual discrimination

Even though a child can see clearly, his visual discrimination may not have developed enough to distinguish adequately differences between all words which he will meet in beginning reading. He may not have learned to note many small differences

which are present in words. For instance, while he may note the difference between *dog* and *wagon*, he cannot distinguish between *dog* and *day*; or between *were* and *wear*, and so on. Numerous words in first-grade reading have similar word forms or configurations. This is frequently a source of confusion to the child. It is imperative that he learn to discriminate small differences which furnish the clues to correct recognition of such words. Furthermore, he must learn that these differences may occur in different positions within the words, at the beginning (*bat* and *sat*), at the end (*bat* and *bad*), or in the middle (*bell* and *ball*). Some children "catch on" quickly, while others need considerable training in visual discrimination to prepare them for reading.

Color discrimination

Many activities connected with reading in grades one and two require ability to discriminate colors. Printed directions for the selection and use of colors occur frequently. Again the child may be required to match color names with colored objects. Although some children upon entering school can identify many colors by name, others cannot. These require training. Furthermore, about 8 per cent of boys on the average have some difficulty with reds and greens. These children need to be identified and, because of their disability, given special aid and consideration in any work that calls for identification and naming of these colors.

Speech factors

Motor incoördination, in the form of speech defects, is often associated with failure to make satisfactory progress in reading. Learning to read involves speech, for speech sounds are to be associated with printed symbols. The child should be able, therefore, to use as well as understand speech. Monroe, (128) for instance, considers that inaccurate articulation may be a hindrance in learning to read when it involves a confusion in the sounds of words that are to be associated with printed words. The child hears a word one way as spoken by the teacher and another way as spoken by himself. Then, when a particular printed word is encountered again, conflicting memories of the word

sound are aroused. This may result in confusion both in word recognition and comprehension. And, according to Witty and Kopel (191), the emotional concomitant attending defective speech may hinder learning to read by causing self-consciousness, embarrassment, and antagonism toward both the reading and other uses of language. Gates (63) also considers that immature speech development may have unfavorable effects upon learning to read. The more severe speech disturbances, as stuttering and clutches, interfere with the reading activity, whether it is speech in oral reading or sub-vocal articulation during silent reading. It seems clear that, whenever oral reading and talking play a prominent part in teaching, speech disability is a hindrance to learning to read.

Speech difficulties should be treated as part of the reading readiness program. Careful diagnosis should be made before remedial work is begun. Most speech difficulties can in fact be recognized by the teacher. The more serious, as stuttering and spastic speech, will need the attention of a specialist. The less serious defects such as lisping and defective articulation, however, often can be successfully treated by the classroom teacher.

Lateral dominance

The rôle that lateral dominance plays in reading readiness is a subject of dispute. More recently less emphasis has been placed upon left handedness or lack of definite handedness (and eyedness) than formerly as a possible cause of reading disability. Nevertheless, it seems desirable that the kindergarten and first-grade teacher identify the hand preferred by the child for skilled manipulations, as in drawing, use of scissors, and writing. The child should be allowed and even encouraged to use this preferred hand so that it may become increasingly dominant.

Experience and Language Development

To be ready for reading, a child not only must have a background of experience, but he must also have acquired meaningful concepts from these experiences. Typical of the experimental

findings are those reported by Hilliard and Troxell (99). They show that pupils who have a rich background of general information make more rapid progress in learning to read than do pupils with meager backgrounds. The information derived from varied experience furnishes material for the clarification of the concepts and meanings essential to success in reading. Furthermore, it is important that the experiences be reconstructed and the concepts refined by the child's own use of oral language. Only when printed symbols stand for words used meaningfully in his own speech, is the child ready to read successfully. To repeat, successful reading requires that the child come to the reading situation with a background of relevant information derived from experience. And the degree to which the child's experiences can be represented and recalled by use of oral language, indicates the adequacy of the meaningful concepts upon which reading comprehension must be based.

Printed words are symbols. And as stated in Chapter I, meanings are not obtained from these symbols. The symbols only serve to arouse concepts or meanings which the child already has acquired. In a sense, one reads with his own experiences. Words read will convey ideas and stimulate thinking to the degree that they are related to and representative of what he himself has stored away in his mind. He gets from reading what he brings to the reading situation, for reading is largely the association of symbols with meaningful experience. The understanding of what is read, then, depends upon a child's knowledge derived from his activities, his perceptions, his contacts with people and things, his emotional experiences and his reactions to all these.

In any first-grade class, children will vary greatly in the number and variety of experiences they have had. Some children, in terms of their experiences, will be approximately ready to begin reading, but many will not. A common cause of failure to make satisfactory progress in reading is lack of a broad background of meaningful concepts. Adequate preparation for beginning reading requires that the child be provided with a large amount and variety of experience as a basis for the development of meanings and concepts. As a matter of fact, the teacher in the elementary

school must at all stages of development plan ahead and provide the pupils with the meanings and concepts necessary to develop successful reading at the next step or stage.

Experience and language facility

Language facility is an important prerequisite for progress in reading. This facility is, of course, intimately related to intelligence since the use of language is an intellectual activity. But presupposing adequate intelligence, there are still other factors involved in verbal facility. One learns to talk by talking. Thus the development of oral language depends largely upon opportunity, stimulation, and encouragement to talk. The child who, in addition to having wide and varied experiences, also has a home and social environment which encourages talking about his experiences is fortunate indeed. He will have progressed far in readiness to read by the time he reaches school. *The less fortunate children* must be guided by the teacher in the development of oral language in the reading readiness program. The children who have developed a reasonable facility in the use of oral language ordinarily will become successful achievers in reading. Language facility alone, however, does not assure success in reading. Other factors, as mental maturity and personal adjustment must be favorable.

There are other aspects of experience and the use of language that are involved in readiness to read. The child will need to acquire the ability to grasp ideas in proper sequences while engaged in activities, while listening to stories, and when reproducing materials orally. And ability to follow directions is essential if the child is to function effectively in classroom activities. To meet these requirements the child should become accustomed to handling school equipment such as books, pencils, scissors, and paper in an approved manner. Some children will need training in doing these things.

Personal and Social Development

When children arrive at the first grade there can be among them just as wide a range in personal and social adjustment as there is in intellectual maturity. Lack of adequate adjustment represented by social inadequacies and other emotional aberrations may prevent a child from learning to read and the teacher should be quick to detect them.

When some children begin the first grade, they are confident, well poised, cheerful, and coöperative. They adjust to the school situation with a minimum of conflict. They get along with the other children and respond well to guidance in schoolroom activities. Other children are relatively immature emotionally. They are shy and timid, self-centered, uncoöperative in routine school activities, unable to get along with other children in either play or work, and are easily upset emotionally. Between these two extremes there are many degrees of maturity in personal and social adjustment.

Various aspects of personal and social adjustment need to be considered. Three of these are especially emphasized by Harris (91). *Emotional stability* provides an essential foundation for attaining the personal and social adjustment needed to learn to read. The emotionally immature child is easily upset, crying with little provocation. His moods change rapidly and he is subject to temper tantrums.

Self-reliance is another sign of personal and social adjustment. The degree to which the child desires and is willing to take the initiative and direct his own activities is a sign of good adjustment. Some children, either through neglect or because of encouragement have learned to take care of their personal needs, to organize their play activities and to solve some of the problems encountered in dealing with objects and with other people. Many children, however, have been handicapped by too much solicitude. Parents insist on relieving the child of responsibility by doing too much for him whether it be dressing him or too closely supervising his contacts with both playmates and adults. Such supervision not only perpetuates infantile behavior patterns, but

also may be quite frustrating to the child seeking maturer satisfactions. If given the opportunity, most children will develop a self-reliant form of behavior. Some children, however, because of their obvious handicaps, need definite guidance to develop self-reliance.

The ability to participate in coöperative enterprises refers more especially to social adjustment. It is, of course, somewhat dependent upon the personal adjustment of the child. The child who is well adjusted socially participates in a large number of group enterprises both outside and in school. This social adjustment which fosters smooth participation in social situations is especially important in the elementary grades where much of the teaching is done in groups.

Reasons for lack of the development in personal and social adjustment necessary for reading readiness can usually be found in the frustrations and conflicts present in the home or neighborhood situation. The child may be so overprotected that initiative is stifled. Or the child may be frustrated and thrown into conflict by lack of parental love, by the quarreling of his parents, by a broken home, by severe and unjustified discipline, by parental favoritism to brothers or sisters or by sheer neglect. Rejection by one's playmates can also be frustrating. The child needs to feel that he belongs. For satisfactory development in adjustment, the child needs love, understanding, appreciation, and justice. Otherwise he feels insecure, his emotional growth is retarded, and many forms of maladjusted behavior may result.

If immaturity in personal and social adjustment is present when the child arrives at school, he is not ready to read. He will be incapable of the sustained attention necessary for learning. And he will be unable to participate effectively in the essential group activities. Guidance will be necessary to develop a more satisfactory degree of adjustment.

Attitudes toward reading

Attitudes are intimately related to personal and social adjustment. It is highly important that the child have favorable attitudes toward the school, the teacher, the other school children,

and toward reading. While favorable attitudes foster success in learning, unfavorable attitudes may result in failure to learn to read. Satisfactory personal and social adjustments make it possible to develop favorable attitudes toward the school situation. Furthermore the child then readily acquires the attitude of wanting to learn to read. The attitudes of parents and of other children as well as the instructional program in the kindergarten tend to influence attitudes toward reading. The whole pattern of readiness should be such that success in reading is possible from the first in order to maintain this positive attitude toward reading. Lack of satisfying success undoubtedly plays a dominant rôle in children's dislike of reading.

Reading Readiness Beyond the First Grade

The reading readiness program should not be limited to beginning reading. The concept of reading readiness implies that at each stage of reading the child is prepared to carry out the activities which will result in further success in reading with understanding. All the factors which influence reading readiness in the first grade are operating also at the higher levels. Additional factors which influence reading readiness at the higher levels have been competently discussed by Harrison (92).

To be successful in any specific reading task, the student must possess the necessary concepts, vocabulary knowledge, and ability to handle language relationships. Without appropriate concepts, meanings will not be accurate. It is necessary to have a precise, extensive, and varied vocabulary to carry the meaning. The student must be able to handle sentences, however complex, for they constitute the organization of the meanings. Added to these abilities are the selection and organization of those meanings which are in line with the reader's purpose. The need of guidance in developing these abilities will vary with individuals. The instructional program for readiness at the higher levels will be considered later at appropriate places.

Summary

Only some of the children who begin first-grade work are ready to begin reading. Reading readiness depends upon a variety of factors. The chances for satisfactory progress in reading are greater, the higher the mental age when the child begins to read. Provided there are no special handicaps, the child may begin to read when he reaches a mental age of about six years. In addition to satisfactory general health, the visual, auditory, and speech requirements for adequate visual and auditory discrimination should be met whenever possible. Experience plus language facility constitute the essential core of reading readiness. Finally, there must be personal and social development adequate for satisfactory adjustment to the learning situation. In general, a child is ready to read when he has attained a certain stage of mental maturity, an adequate background of experience, and satisfactory personal and social adjustments. These all together make it possible for him to progress at a normal rate in learning to read when exposed to good classroom teaching.

Selected references on reading readiness are listed at the end of Chapter IV.

CHAPTER III

Determining Readiness for Reading

It has been brought out in the preceding chapter that many abilities and traits are involved in reading readiness. These compose a pattern which is individual with each child. A child's readiness for reading must be appraised in terms of the degree of development and the needs revealed in the pattern. At various times during the kindergarten and first grade, it will be desirable for the teacher to appraise reading readiness in order to discover whether the child is ready to read or where additional instructional emphasis is needed. Some of the factors contributing to reading readiness may be measured by standardized tests. Others are appraised by systematic observation of the child's behavior. Still others must be evaluated on the basis of information obtained from the child's home.

Intelligence Tests

Since mental development is one of the more significant factors in reading readiness, it is obvious that a measure of intelligence is desirable for estimating maturity of learning ability. There are group and individual tests suitable for children in the kindergarten and the early grades. The group tests tend to be much used because they can be given and scored by the classroom teacher. In these, the directions are given orally by the teacher, and the children respond by making marks on pictures. No reading is involved. Individual tests, which tend to give a more valid meas-

ure of learning ability, are given by a trained examiner. Because many schools do not have a trained examiner readily available, Harris (91) has a practical suggestion for such situations. Give a group test to all children. To those with very low scores, or where there is reason to suspect that a child is brighter than his score indicates, a second group test is given individually or in a very small group. Where there is still doubt about the accuracy of results, or when a child's score is so low that special class placement seems indicated, the child should be referred to a specially trained examiner for an individual test.

All tests mentioned provide a measure of mental age (M.A.) and an intelligence quotient (I.Q.). The M.A. indicates the child's mental level in months, or years and months, and is the most valuable score for appraising reading readiness. The I.Q. is the mental age divided by the chronological age and is therefore an index of the relative brightness of a child. An I.Q. of 100 indicates average brightness, for then the mental age is the same as the chronological age.

Below are listed several group tests which have been found useful in late kindergarten and first grade. Additional tests are listed by Harris (91), by Betts (7), by Hildreth (98), and by Harrison (92). Full descriptions and prices may be obtained from the publishers.

1. *Pintner-Cunningham Primary Test*. Three forms. World Book Company, Yonkers, N. Y. This non-language test takes 40 minutes (one or two sittings) to give. It is suitable for children in the kindergarten through grade 2.
2. *Kuhlmann-Anderson Intelligence Test, Fifth Edition, Grades 1B, 1A*. One form. Educational Test Bureau, Minneapolis, Minn. This non-language test takes 60 minutes (two sittings) to give Level 1B or 1A. These first two levels are suitable for children in the early and later parts of the first grade.
3. *Dearborn First Grade Tests of Intelligence*. One form. Educational Test Bureau, Minneapolis, Minn. This non-language test takes 50 to 70 minutes (two sittings) to give. It is suitable for children of six years and over.
4. *Detroit First Grade Intelligence Test*. One form. World Book Company, Yonkers, N. Y. This non-language test takes 20 to 30 minutes to give. It is suitable for children of five years, nine months to seven years, ten months.

5. *California Test of Mental Maturity*. One form; pre-Primary Battery (long or short form). Southern California School Book Depository, Hollywood, Calif. This test measures separately non-language and language scores. The long form takes about 90 minutes (two sittings), the short form, 45 minutes. It is suitable for kindergarten and grade-one children. Not over 20 children should be tested at once.

Below are two tests of intelligence which must be administered individually by specially trained examiners.

1. *Revised Stanford-Binet Intelligence Test*. Two forms. Houghton Mifflin Company, Boston, Mass. This test is suitable for all children and takes about 30 minutes at grade-one level. Responses required are language and performance. It is the most widely used and the best test of intelligence that we have for school children.
2. *Arthur Point Scale of Performance Test*. Two forms. C. H. Stoelting Co., Chicago, Ill. This test is suitable for children of five years and older. It takes about 35 minutes to give. Responses are non-language performance. The test is particularly appropriate where the Binet test is not suitable, as when the child has a language handicap.

An individual intelligence test is superior in general to group tests, especially during the early school years. Of the individual tests, the revision of the Stanford-Binet is by far the best unless the child has a language handicap. If at all possible, the Binet test should be employed in appraising reading readiness. It is true that a majority of the responses which the child gives are verbal but that does not seem objectionable to those who are interested in determining readiness for reading since reading itself is verbal. It is generally agreed that the best prediction of ability to learn to read derived from an intelligence test is obtained by the Binet test. As said before, if a trained examiner is not available, one necessarily must fall back on use of a group test.

Neither the M.A.'s nor the I.Q.'s derived from different tests are strictly comparable. It is customary and desirable, therefore, in recording any M.A.'s and I.Q.'s to designate the intelligence test used.

Use of Intelligence tests

Both the M.A.'s and the I.Q.'s derived from test scores are useful to the teacher. As noted in Chapter II, the M.A. is an important determinant of reading readiness in that children with M.A.'s of less than six years tend to have difficulty in learning to read with ordinary classroom teaching. A child's I.Q. predicts fairly well not only the ease with which he will learn to read, provided his M.A. is adequate, but also the rate at which he will progress in the learning. Other things being equal, those with relatively high I.Q.'s tend to progress rapidly while those with lower I.Q.'s learn at a slower rate. Both M.A. and I.Q., therefore, must be considered by the teacher in appraising readiness for reading and in adjusting instruction to the individual needs of the pupils.

The scores on any intelligence test should be kept strictly confidential. This is especially important not only with young children who cannot understand what is involved but with most parents also. Few parents have the training and experience required to comprehend and make wise use of test results. Parental reaction to this kind of information may have a decidedly unfortunate effect upon the child's personal and social development.

Color-Blind Tests

The child who is color blind seldom finds it out himself. Furthermore, neither the teacher nor the parents are likely to discover his color blindness without special tests. In all probability the period when color blindness is likely to be a handicap in *reading* is in the first one or two grades where colors are extensively used in reading materials or in activities connected with instruction in reading. It is desirable, therefore that children be tested for color blindness soon after they enter the first grade. Any color-blind test used must be one to which these young children can respond effectively. The Jensen test or certain plates in some pseudo-isochromatic tests may be employed advantageously with first-grade children.

1. *Tests for Color Blindness, Visual Acuity, Astigmatism*, by Milton B. Jensen. New York: The Psychological Corporation, 1935. This test contains a few simple charts to which the child may respond by pointing or by tracing.
2. *Pseudo-Isochromatic Plates for Testing Color Perception*. Southbridge, Mass., American Optical Co., 1940; also distributed by C. H. Stoelting Co., Chicago. Certain plates (numbers 35, 36, 45, 46) are responded to by tracing pathways and may, therefore, be used with young children. The tracing should be done with a camel-hair brush which does not affect the chart. In fact, it should be possible with simplified directions, together with demonstrations, to have children trace the outlines of the numbers on the other test plates.

Reading Readiness Tests

Numerous tests have been devised for the sole purpose of appraising readiness for reading. They attempt to measure the more important abilities involved in beginning reading. There are scores for each part of a test as well as a total score. Part scores are frequently more useful than a total score. Gates and others (65) conclude that a total readiness score, while useful, is of less value than information concerning the strength or weakness of the child in each of the important abilities, skills, techniques, and interests pertaining to successful progress in learning to read. In this respect, diagnosis by means of part scores on reading readiness tests is a valuable aid to instruction at various stages in the first two grades and for use with reading disability cases with less than second-grade reading performance. However, this diagnostic information should not be misused. Ordinarily neither the artificial type of training derived from the formal exercises found in certain readiness workbooks nor drill confined to the type of materials included in the subtests of reading readiness tests is desirable. Hildreth's (98) cautions are apt. She notes that *formal* exercises to train auditory and visual perception may easily be overdone. Such exercises often tend to become artificial and meaningless to the child. It is more profitable to teach visual and auditory discrimination in the context of the child's immediate concrete experiences in which precision in seeing and hearing is required. In other words, a child should not be drilled on specific test items he has failed in a reading

readiness test. But if he is found especially deficient in such areas as language or visual discrimination, he should receive training through types of experience selected to overcome these deficiencies (see next chapter).

According to the analysis by Robinson and Hall (142), reading readiness tests tend to yield highly reliable measures which predict fairly well success in learning to read. No one of the tests they studied could be recommended as consistently better than the others. Apparently neither reading readiness tests as a group nor intelligence tests have been found to be consistently best in comparison with each other for predicting success in reading. Both are good. In fact, the results reported by Gates (60) and by Fendrick and McGlade (52) indicate that all mental tests and reading readiness tests studied predict ability to learn to read reasonably well. The types of readiness tests found to be more satisfactory by Gates (62) were those employing picture directions, word matching, word-card matching, rhyming, and letter naming.

No single test of reading readiness measures all relevant factors. Emphasis varies with different authors. There are, of course, certain factors such as attitudes, interests, and behavior patterns related to adjustment which must be appraised by other means. With some cases it is advisable to employ more than one reading readiness test for a more complete diagnosis. In the following list several representative and commonly used reading readiness tests are briefly described. Norms for use in classifying the child as to relative standing are ordinarily given in a manual of directions. Additional tests are listed by Harris (91), Harrison (92), Hildreth (98), Wrightstone (194), Betts (7), and Buros (21). Prices and descriptions of tests may be obtained from the publishers.

1. *Gates Reading Readiness Tests*. One form. New York: Bureau of Publications, Teachers College, Columbia University, 1939. Takes 50 minutes (two sittings) to give. Primarily for use in first grade. Five subtests. *Picture Directions* in which the examiner gives oral directions and the children make designated marks on the pictures. *Word Matching* in which four words are presented in an oblong area. The two words which are alike must be connected by a line.

Word-Card Matching Test, in which sets of four words each are listed in the test sheet. The examiner presents for five seconds one word on a card and then the child tries to find among the four, the word presented. Sounds are presented in the *Rhyming Test*. In each item the children are given orally the names of four pictures in the test. The examiner then gives a word that rhymes with the name of one of the four pictures which the child marks. In the last item the child is asked to read as many letters and digits as he can. A capital alphabet, a lower case (that is, small-letter) alphabet and digits 0 to 9 are presented. This is one of the better reading readiness tests.

2. *Metropolitan Readiness Tests*. One form. Yonkers, N. Y.: World Book Company, 1939. Testing time is 70 minutes (three sittings). Kindergarten and grade one. Predicts fairly well success in first-grade reading. The six subtests consist of perception of similarities, copying, vocabulary, sentences, numbers, and information. They are designed to measure visual discrimination, understanding of words and sentences, ability to count, and range of information. This also is one of the better tests for classifying first graders in readiness for reading.
3. *Lee-Clark Reading Readiness Test*. One form. Los Angeles: California Test Bureau, 1943. Testing time is 40 minutes (two sittings). Kindergarten and grade one. The subtests principally measure visual discrimination, vocabulary knowledge, and ability to follow directions. Letters, words, and pictures are employed. This well-constructed test has the advantage of brevity.
4. *Van Wagenen Reading Readiness Tests*. Two forms. Minneapolis: Educational Test Bureau, 1938. Time required is about 45 minutes (two or more sittings) but the tests are not timed. End of kindergarten and first grade. All testing must be individual. The six subtests cover measurement of range of information, understanding of verbal relationships, vocabulary knowledge, memory span for sentences, visual word discrimination, and ability to learn word forms. This set of tests furnishes a good estimate of the language background essential for beginning reading. The Van Wagenen test is also very useful as a follow-up diagnostic test for further evaluation and for children having difficulty learning to read.
5. *Stone-Grover Classification Test for Beginners in Reading*. One form. St. Louis: Webster Publishing Co., 1933. Time to administer is about 20 minutes (one sitting). Beginning of grade one. Predicts fairly well success in first grade reading. The two parts are concerned with visual discrimination of word forms. This test is particularly useful for classifying beginners into teaching groups.
6. *Monroe Reading Aptitude Tests*. One form. Boston: Houghton Mifflin Company, 1935. Time required is about 50 minutes (two or three sittings). Beginning of grade one. Most but not all of the tests may be given to groups. Claimed prediction of success in first

grade reading is high. The 17 subtests cover visual functions (memory of orientation of visual forms, eye movement control, reproduction from memory of visually presented symbols); auditory discrimination for words and sound-blending, and memory for a story that has been read aloud; motor control in dotting, tracing, and writing; accuracy and speed of articulation in speaking; vocabulary knowledge and length of sentences used; and laterality (handedness, and so on) preferences. Reading readiness is in terms of total score, and strength and weaknesses are diagnosed by the subtests. The Monroe test is adequately standardized and well organized. It is well adapted for use with reading disability cases as well as for readiness to read in grade one.

Using reading readiness tests

There are, as noted above, both individual and group reading readiness tests. The teacher can readily learn to give these tests. In all cases the standardized procedures given in the manual of directions should be followed *exactly as given*. Otherwise the accompanying norms are valueless for interpreting the obtained scores. Furthermore, where timing is required, this should be done accurately. It is best to use a stop watch for this. The examiner must ascertain at all times that the children understand and are following directions. Authors of the group tests suggest that small groups be tested; less than 15; sometimes four to seven. The smaller the group, the greater the likelihood that the results will be truly representative of the child's ability. The only advantage of group testing at the kindergarten and early first-grade level is to save time for the teacher and for the class. Any group test, of course, may be given individually. The teacher need not necessarily employ a test designed for individual use where individual testing is indicated as with a questionable case or a retarded reader. A child should not be required to work continuously for more than about 20 to 25 minutes at one time. When tests require more time, additional sittings should be used.

If an intelligence test is not available, certain reading readiness tests may be employed as tentative measures of general learning ability. Among these are the Metropolitan and the Van Wagonen Reading Readiness Tests. In most instances, the correlation between intelligence test scores and reading readiness test scores is high.

Reading readiness tests should not be given to first graders until the children have had at least two weeks to adjust to their teacher, the room and classroom activities in general. The tests are commonly given in the third to fifth weeks of grade one. In any case, a readiness test should be administered only after a child has demonstrated sufficient growth in following directions and in handling a crayon or pencil to perform effectively in a test situation. The test should be given to groups only if the children have shown that they are satisfactorily adjusted to working in groups. If two forms of a test are not available, and a retesting is needed, the same form may be given after an interval of a month or more.

Other Aspects of Measured Readiness

Most tests of reading readiness appraise visual and auditory discrimination. Poor discrimination and lack of satisfactory progress in reading may be due to deficiencies in vision or in hearing. It is desirable, therefore, to check the visual and auditory efficiency of young school children.

Appraisal of visual efficiency

The visual efficiency of every child should be appraised prior to beginning reading. Some kind of screening test should be employed by the school nurse or other qualified person to detect those children who should be referred to a specialist for diagnosis and correction. The *Snelling Chart* and the *American Medical Association Rating Reading Card* are frequently employed as screening tests. Special charts are now available for testing children unable to read. The most common of these, the E-Test is made up of block letter E's. The child merely indicates which side of the E is the open side. This the child can do by spreading the first three fingers of his hand and pointing in the proper direction, that is, up, down, right, or left. In all testing, a measure should be obtained for each eye separately and for binocular vision.

Any check of vision should include a test of near (about 12

to 14 inches) as well as of distance vision (20 feet). A far-sighted child will be checked as normal when looking at objects at distance but be unable to see clearly at the close range required for reading. The near-sighted child, on the other hand, may be able to see distinctly at reading distance but be unable to see clearly what is on the blackboard.

A very satisfactory screening device consists of the *Betts Visual Sensation and Perception Tests* (7). These tests are mounted on stereoscopic slides and are viewed through the Telebinocular, a modified stereoscope. They include measures of presence of binocular vision, fusion for near and far vision, muscle balance, stereopsis level or depth perception, and sharpness of visual image in different meridians. The results are highly reliable and accurate enough for screening purposes. Another excellent device appropriate for visual screening in the school is the *Eames Eye Test*. It measures visual acuity, nearsightedness, farsightedness, fusion, and astigmatism.*

Many signs of visual discomfort which may be symptoms of visual disability may be noted by the teacher. Among these are excessive blinking and watering of the eyes, squirming about, contorting the face and tilting the head when reading or doing other visual discrimination, inflamed eyelids, and complaints of headaches after reading for a short time. When there is any suggestion of visual difficulty either in the behavior of the child or from the results of screening tests, the teacher should see to it that the child is sent to a specialist for diagnosis.

Appraisal of auditory efficiency

The more accurate appraisal of auditory efficiency by school health services is made by means of an audiometer. There are several audiometers available. Two late models of these are the

* *Snelling Charts* and the *E-Test* may be obtained from the National Society for the Prevention of Blindness, 450 Seventh Avenue, New York; the *Eames Eye Test* from the World Book Company, Yonkers, N. Y.; the *A.M.A. Rating Reading Card* from the American Medical Association, 535 North Dearborn Street, Chicago; Western Electric Company's audiometers from the Graybar Electric Company, Graybar Building, New York. The Maico Company, 25 Third Street North, Minneapolis, also manufactures dependable audiometers.

Western Electric Company's 4C and 6BP. The 4C model is similar to a portable phonograph. Each child hears the sounds through a telephone receiver which is connected to the apparatus by a wire. As many as 40 persons can be tested at one time. The test consists of a series of numbers which are written down by the child. The chief advantages of this audiometer are its economy of time, and the fact that it is more accurate than a whisper or watch-tick test for screening purposes. But, because of the response required, the 4C audiometer is unsuitable for young children who cannot readily write numbers.

When an audiometer is not available or when testing the younger children who cannot write numbers, the watch-tick test or whisper test may be used for preliminary screening. A loud-ticking cheap watch may be used for the watch-tick test. According to Blair (11), the normal child can hear the tick at about 48 inches. If the tick cannot be heard at a distance greater than 16 inches, the child should be examined by a specialist.

Specifications for the whisper or low-voice test are given by Betts (7). The whisper test is given at about 15 inches from the child and the low-voice test at 20 feet. The examiner pronounces words and numbers which the child repeats. If the child cannot hear, the examiner moves up until correct responses are made. In all these tests, one ear at a time is tested. Only the more severe deficiencies will be revealed by the watch-tick or whisper test. Any children who do not pass the group audiometer test (model 4C) or who show signs of impaired hearing on the watch-tick or whisper test, should be given the individual and more precise test by means of the 6BP or a comparable audiometer.

The 6BP audiometer provides accurate measurement of hearing from relatively low pitches to high ones. Speech sounds ordinarily range from about 100 to 9000 vibrations per second in pitch. This range is covered by measurement on the 6BP audiometer. The measurements are made in terms of significant hearing loss in comparison with the normal. Zero decibel loss means exactly at normal. There is some variation in normal hearing. However, when a decibel loss of 20 or more in either one or both ears is found, the disability is probably serious and the child

should be referred to a medical specialist. Preferably this referral should be based upon a 6BP or comparable audiometer test. Children should be free from colds when tested since colds frequently produce some temporary loss of hearing. The most comprehensive and practical book on the measurement and evaluation of hearing among school children is Dahl's manual (32).

The alert teacher will notice signs of hearing deficiencies. The hard-of-hearing child may be inattentive and frequently ask for statements to be repeated or he may misunderstand even simple directions. He may tilt his head, turn one ear toward speaker or report ringing and buzzing in the head. Hearing is affected by various abnormal conditions such as excessive accumulation of ear wax, mouth breathing caused by adenoids which block off the tube leading from the throat to middle ear, frequent colds, and earache due to infection of the middle ear. A check on such symptoms may reveal the source of the hearing difficulty.

Teacher Appraisal of Readiness

Many first-grade teachers are able, after having children under their guidance for a few weeks, to predict rather well their ability to learn to read (94). This does not imply that readiness tests are not important. Not every teacher is able to rate all of her children accurately. The tests do give a quick appraisal by standardized procedures. In general, the teacher's judgment should complement test results rather than replace them. In fact, certain aspects of readiness for initial reading instruction are best evaluated by the teacher. She should, of course, be experienced in making systematic observations of behavior and appraisals of development. Furthermore, certain factors concerned with emotional and personal adjustment are involved that are not readily assessed by standardized tests.

Appraisal of emotional and social adjustment

Emotional and social adjustment is not easy to judge. Nevertheless, there are several aspects of behavior which reflect personal adjustment and which may be noted and evaluated in some

degree by the teacher. For instance, general withdrawing behavior may be accompanied by excessive timidity and self consciousness. Or a child may manifest excessively aggressive behavior in the attempt to keep himself at the center of attention. This may take the form of temper tantrums, the use of physical force to get his own way, or other varieties of blustering and disrupting behavior. Such a child is unable to complete assigned tasks. He lacks consideration for the rights of others. Other children, who are not happy in the school situation, may develop different ways of showing their disinterest in some or all classroom activities. All of these types have in common a tendency to tenseness, strain and nervousness. Such children contrast with those who are cheerful, patient, responsive to guidance, and who complete assigned tasks. The general maladjustment or lack of confidence manifested by excessive shyness or aggressiveness, both accompanied by nervous tension, is apt to result in the development of a negative attitude toward reading. To avoid this the teacher must be patient and understanding while guiding her children toward better adjustment to the learning situation.

Appraisal of interests and attitudes

Some evaluation should be made of a child's interests and attitudes, for they influence reading readiness. Note should be made of the types of games and leisure activities participated in by the child, the degree to which he uses pencils and crayons, whether he enjoys examining pictures in books and magazines and whether he likes to listen to and to tell stories. The teacher should observe any signs showing that the child is eager to learn, and what needs he has that may be satisfied through reading. Some children, of course, make perfectly clear that they are interested in the printed page and even ask to be shown how to read.

In attempting to appraise the attitudes of the children in her room, the teacher will find it helpful to make an inventory which can be applied by checking to each particular child. She may list such groups of attitudes as reactions to authority, ability to get along harmoniously with other children, and willingness to accept suggestions. She may also note the degree to which the child likes

school, the teacher, and the company of other children. Other clues to attitudes may be found in work habits such as care in use of materials (books, crayons), respect for the property of others, and ability to work with others. The rôle of attitudes in developing reading readiness receives further consideration in the next chapter.

Appraisal of experience

Experience is of many kinds, and, as noted earlier, breadth and variety of experience play an important rôle in reading readiness. The teacher evaluates the background and extent of a child's experience by gathering information about him in several areas. She may size up the nature of the child's home environment with respect to story telling and story reading by parents, presence of books and magazines, use of language, number of children in the family, recreational activities, and interest of parents in the training and education of the children. There should also be some inventory of the child's knowledge of urban versus country life, information about neighborhood and community businesses and services, kinds and uses of transportation, and the extent to which he has travelled. It is particularly important to note the child's ability to verbalize the information gained through experience. Some children gain more rapidly than others in ability to describe their experiences.

This appraisal of experience should determine whether the child's information has furnished concepts adequate for understanding the material which will be encountered soon in reading. For instance, children who start to read should already have fairly clear ideas about several animals, certain farm activities, fire departments, mailmen, trains, playgrounds, food, and the like.

Other appraisals

It is desirable for the teacher to observe certain other factors. Does the child's vocabulary appear adequate or limited? Are there tendencies to lisp or stutter? Which is the child's preferred hand? This is usually readily determined by noting which hand is preferred for using scissors, crayons, and a paint brush. The teacher

should then encourage its use. Whether the preference is marked or slight, the child should be encouraged to use the preferred hand. When the child is ambidexterous, that is, shows no preference for either hand, he may be encouraged to write with the right hand, but not forced to do so. Such a child may develop by himself a hand preference as he grows older.

Appraisals made by the teacher

Appraisals derived from systematic teacher observations are highly important. They constitute an essential complement to the uses made of scores on readiness tests. However, it should be understood that the rating of a child for emotional adjustment, background of experience, and the like is often not easy. Although the teacher may readily get an over-all impression of a child's competence, skill in more specific rating develops only with practice. Estimates or ratings should be made by comparing a child with the other children in the class with respect to the behavior, performance or adjustment in question. For instance, in estimating the ability of a child to coöperate with other children in the school situation, he may be rated on a five-point scale. The steps might be listed as *quarrelsome*, *causes slight friction*, *indifferent*, *coöperates most of time*, and *exceptionally coöperative*. Estimates of other traits may be made similarly.

A mimeographed outline form like that shown in Figure 1 will perhaps be helpful for summarizing appraisals. There should be one page for each child in the class. Additional items can be added. A summary sheet, listing all members of a class with main strengths and weaknesses of each pupil, is easily constructed.

In using the rating sheet in Figure 1, the spaces may be left blank if the status is adequate, or simply marked O.K. When there is a deficiency in vision, speech, and so on, it may be listed in brief form. The items under *adjustment* are concerned with social and emotional adjustment as manifested by behavior in different situations. Evaluation of each item may be designated by phrases such as "adequate," "coöperates well," "very shy," "aggressive trouble-maker," and the like. These entries represent a summa-

FIG. 1. CHART FOR RECORDING TEACHER APPRAISAL OF READING READINESS

Name _____ Date _____
 Chronological Age (yrs. and mos.) _____ Mental age (yrs. and mos.) _____
 Vision _____ Hearing _____
 Health deficiencies _____
 Preferred hand _____
 Speech deficiencies _____
 Home environment _____

Adjustment:

To home situation _____
 To teacher _____
 To children in classroom _____
 To group activities in class _____
 To play situations _____

Responses:

To guidance _____
 To classroom discipline _____
 Verbal facility _____
 Work habits _____
 To pictures and books _____

Experience, Interests, and Attitudes:

In home _____
 In local community _____
 In nearby areas _____
 Travel _____
 Breadth of vocabulary and concepts acquired _____
 Interests _____
 Attitude toward reading _____
 Other comments _____

Reading readiness test scores _____

Tentative estimate of readiness for reading _____

rization of observations and ratings discussed above. The items under *responses* deal with the child's reactions to suggestions or attempts at guidance, to situations calling for verbal participation, and so on. These five items will yield a picture of coöperation and participation in school activities. The remaining items dealing with *experience*, *interests*, and *attitudes* are rated in a similar manner. The evaluations here will reveal the breadth and quality of

a child's experience together with certain reaction tendencies relevant to reading readiness. For the sake of convenience, scores from reading readiness tests may also be entered in this chart. The estimate of readiness to read is begun at the bottom of the chart and continued on the back of the page. A more elaborate chart for checking readiness for reading is illustrated in the *Iowa Elementary Teachers Handbook* (103).

Formulating an appraisal of readiness to read

Appraising the readiness of a child for beginning reading may be based upon test results, upon teacher appraisal of readiness factors, or a combination of materials from both types of sources. The latter tends to be the most satisfactory.

Each standardized test of reading readiness is accompanied by a manual of directions for administering and scoring the test, and for interpreting the results. All these operations can be carried out by the teacher. Results of a test will reveal areas of strengths and weaknesses among the factors measured. But all factors affecting readiness to read are not measured by any one test. Furthermore, as shown by Gates (60), the diagnostic value of certain subtests depends upon the teaching method to be used. Thus subtests of auditory discrimination are particularly significant if the teacher emphasizes phonetic analysis as a word recognition technique in her instruction.

Teacher observations as discussed above constitute appraisals of facts that are as important as those measured by standardized tests. Among these are the appraisals dealing with personal and social adjustment, and with attitudes related to reading. Moreover, it must be remembered that while tests measure status as of a particular time, teacher appraisal is a continuous affair, taking place, both informally and in a systematic manner, day after day and week after week. The strengths and weaknesses it reveals provide a guide so that when a child's pattern of abilities, adjustments, and attitudes leave something to be desired, proper attention and proper instruction are provided to bring about better readiness for reading. Details of instruction to prepare the child for reading are given in the next chapter.

Summary

Reading readiness is determined through an appraisal of development in mental ability, general experience including language facility, visual and auditory efficiency, and personal and social adjustment. The appraisal is achieved by use of standardized tests of intelligence, standardized reading readiness tests, and ratings based upon teacher observations. The most effective appraisal is derived from the standardized test results supplemented by teacher ratings. The appraisal of readiness for a specific child will reveal strengths and weaknesses in his pattern of abilities, experiences, and adjustments. These provide a guide for instruction in readiness.

Selected references on reading readiness are listed at the end of Chapter IV.



SHOPPING

CHAPTER IV

The Development of Reading Readiness

Success in learning to read depends largely upon the stage of all-round development which the child has achieved. The pattern of growth involved embraces a complex of abilities, acquired behavior, and information. Some of its aspects, as intelligence, come with inner maturation. But many other important ingredients are learned and therefore are susceptible to guidance. To a large degree, therefore, reading readiness can be and should be taught. It is the duty of the school to provide children in the kindergarten and first grade with *optimal conditions for acquiring the information and behavior patterns and degree of adjustment which foster reading readiness.*

Although good kindergarten training contributes to reading readiness, *such training is not on a level with the training for the more developed children in the first grade.* The value of systematic instruction in preparation for reading at the beginning of the first grade has been demonstrated by Scott (147). She found that the methods which were intended to prepare children for progress in the initial stages of reading were more effective than either kindergarten attendance or no preparatory instruction. Some children, however, due to favorable home environment and parental guidance *in addition to kindergarten experience,* will reach the first grade fairly well equipped to begin reading without systematic readiness instruction. But even these children, no matter how broad their background of experience and language facilities, *will profit from a brief period of orientation before*

beginning to read. There will be their need to adapt to a new teacher, a new room, and new class organizations in order to feel comfortable and secure. During this time the teacher estimates, measures, and evaluates the pupils' abilities, backgrounds of information and behavior patterns. If the classroom environment is stimulating and the teaching is aimed at individual needs, all children will show gratifying growth. Because of wide differences in degree of development, the readiness program will continue longer for some children than for others. *The reading readiness program should be well organized and centered around definite objectives to promote growth in experience, verbal facility, and personal and social adjustment as discussed earlier. There will be some variation in emphasis according to local situations. But any tendency for the readiness program to be confined to formalized drill should be avoided.*

Personal and Social Adjustment

Other things being equal, the happy, well adjusted child who feels secure in the school situation will make the better progress in learning to read. In addition to general social orientation, the readiness program should furnish experiences which foster more adequate personal and social adjustment. Such experiences should be so arranged that they encourage active interests and self-expression. Frequently special guidance is needed to develop confidence and self-reliance in a child. Participation and success in both classroom and play activities are important for developing a feeling of security in the timid, shut-in child. It is equally important to help the child who is compensating for a feeling of inferiority by resorting to aggressive and bullying behavior. He needs sympathetic understanding as well as success in participation to gain self-confidence and to bring about his coöperation in the school activities. Sometimes it is necessary to consult with and get the coöperation of the parents in order to achieve development of better personal and social adjustment of the child.

A number of procedures are helpful in developing emotional and social habits which promote better adjustment. Games can

be so organized that each child will expect to participate. Responsibility for a definite part of a group task when working with a small group tends to develop confidence in the timid child. A feeling of security and personal gratification may come with the preparation and presentation of something particularly useful to a group, or something both interesting and enjoyable to the class. In general, personal and social adjustment is improved by effective participation which requires coöperation in group work and play activities. The effect of emotional attitudes on learning is ably evaluated by Monroe (129).

Adjustments for Physical Deficiencies

Whenever physical deficiencies are discovered, correction should be made if that is possible. Where indicated, refer the child to a specialist. Thus, some children will need glasses or special visual training to improve seeing. Others will need removal of tonsils or adenoids to remedy impaired hearing. As noted above, minor speech defects ordinarily can be corrected by the teacher. For instance, mild cases of lisping, poor articulation, and too fast speaking usually clear up with some guidance by the teacher. Relaxed attitudes should be encouraged for these children. All severe and persistent cases of speech difficulty require help from a specialist. Poor muscular coördination is aided by *patient* understanding, instruction in how to handle objects, and the use of various rhythmic activities occurring in certain games.

When defects cannot be corrected, as in some cases of deficient hearing and vision, instruction should be adapted to give the child all the advantages possible. For instance, the hard-of-hearing child should have a favored position close to the speaker and should be encouraged to watch the lips of the person speaking. For this child the visual approach in teaching reading should be emphasized. Similarly, classroom adjustments should be made for the child who has poor vision. He should have a seat where light is very good so that visual materials are as readily seen as possible. For him, emphasis should be placed upon the auditory methods of instruction. Reading need not be delayed because

of auditory (Bond, 13) or visual (Fendrick, 51) deficiencies, provided appropriate methods of instruction are employed. This does not mean that referral to a specialist should be delayed when trouble is suspected. Visual and auditory difficulties are bound to be handicaps to learning to read.

When there is poor general health, care must be taken to avoid fatigue. Following a medical examination, the doctor's suggestions concerning the amount of work required of a child should be followed. Parents should be consulted concerning the child's eating and sleeping habits. Adequate rest periods are essential.

In general, whenever physical difficulties are suspected, an examination by a specialist should be recommended, following which difficulties should be corrected if possible. Where this is not feasible, adjustments to the disability should be made in classroom procedure.

Training in Visual Discrimination

Learning to read requires rather exacting visual discrimination. By the time a child has reached the beginning of grade one, he will of course have learned to discriminate many objects. For instance, he is completely familiar with the differences between a chair and a stool, a box and a ball, a stone and an apple, a pencil and a crayon, and so on. To be ready for reading, however, the child must be able to make much finer discriminations. He will have to be able to discriminate between word forms, and even details within word forms. Practically all reading readiness tests have a section to measure perception of likenesses and differences in words and/or letters. Some tests include sections to measure discrimination of likenesses and differences in outlined pictures or geometric forms. *The usefulness of these is a questionable matter.* Most children can readily distinguish between a triangle and a circle or square, and furthermore it is doubtful that training to discriminate geometric forms will have any important effect on ability to discriminate words. Only when there is an almost

part of the program in visual discrimination. The ordinary teacher will seldom encounter such pupils.

Improving discrimination of word forms and letters

Various kinds of exercises may be employed to improve discrimination of word forms. In this training it is not necessary, and the child should not be required, to pronounce the words. Nevertheless, words which the child will meet in first-grade reading should be used. In organizing such exercises, the initial ones should involve obvious likenesses and differences. As the training progresses, the discriminations required should become more and more exacting. Below are samples of exercises to improve visual discrimination:

Find and mark out the word that is the same as the sample at the beginning:

applepail, shovel, cat, mouse, monkey, apple
homehouse, home, board, trouble, book, horse

In each group of four words draw a line connecting the two words that are the same:

rap	rat	bell	sell	book	back
rat	run	tell	bell	book	bank

A number of other devices such as the following may be employed for variety: (1) List two parallel columns of words, with the words the same but in different order in the second column. Have the child draw a line connecting words that are identical. (2) Present a group of four or five sentences in which one word, such as doll, is repeated frequently. Instruct the child to cross out the word that is repeated. (3) Present successive groups of four words all on one line. The teacher holds up a card with one of the words in line one and has the pupil cross it out, and so on to the second and later lines. (4) Another variation is to have four or five words in a series, all but one alike. The child is to cross out the one which is different. (5) In all the above illustrations, capital or small letters of the alphabet may be used instead of words. The child will have to learn to discriminate differences

between letters in order to distinguish between such word forms as *let* and *lot*, and so on. Detailed exercises are listed by Betts (7).

Exercises like those listed above should be used with discretion. For best results, they should constitute only a part of the readiness program for developing visual discrimination. The alert teacher will find many opportunities to emphasize visual discrimination during a variety of class activities. Nevertheless, some drill in word discrimination is desirable. McKee (126) stresses the need for training the child to distinguish between word forms, parts of words, and letters in preparing the child for beginning reading. It is likely that such training will become more effective as the child begins to read. Hildreth (98) states positively that exercises requiring the matching of word forms "should come after children have done some context reading" (p. 285).

With proper instruction, most children will improve rapidly in visual discrimination ability. After beginning to read, practice in visual discrimination becomes an integral part of the reading process. At times, however, special training will be needed to meet individual difficulties and to assure discrimination of certain new words.

Training in Auditory Discrimination

By the time a child enters school he has gained considerable skill in ability to distinguish between sound patterns. Quite early he will readily distinguish between the sound of his mother's voice and that of other people, and between a word of approval and a word of command. Differences between ordinary sounds in his environment, such as an automobile horn and barking of a dog, are readily distinguished. Many children will have learned to distinguish quite well the likenesses and differences in many word sounds through listening and talking, and through hearing and repeating nursery rhymes. It is doubtful, however, that all children will have learned to distinguish all the slight differences in sounds needed in beginning reading, as the difference between the sounds of *wear* and *where*, and so on. Skill in distinguishing auditory patterns is extremely important in learning to read. While some children will need the training more than others, all will

profit by some practice prior to and during beginning reading. For instance, the child will need to distinguish between the sounds of *dog* and *dig*, *big* and *bug*, *hat* and *hot*, and so on. Acquisition of the ability to distinguish not only between the more easily noted differences as *bat* and *bug*, but also between the more confusing sounds as *broad* and *board*, is an essential part of preparation for reading.

Methods to improve discrimination of word sounds

Training in auditory discrimination in the reading readiness program is concerned with the sounds made in pronouncing sounds of words that will be encountered and needed in beginning reading. It deals with discrimination of sounds in different parts of the words—beginning, middle, and ending sounds. Various types of exercises have been devised for this training. Detailed suggestions are given in Betts (7) and in certain methods books (103). As with visual training, progress should be from the easy to the more difficult. Obviously all the exercises should be oral until after reading is begun. In all instances, *natural* pronunciation of words should be used, that is, there should be no special sounding out of words. Below are some sample illustrations:

Various forms of rhyming exercises have been found useful in developing auditory discrimination.

(1) Present four or five words, all but one of which rhyme, and let the children find that one, as *ball*, *tall*, *call*, *cat*, *fall*.

(2) Let the children furnish the rhyming word at the end of a second line of a jingle, as

The old black cat
Caught a big white _____

Alternate choices may be given if wished as *ball*, *rat*, *fly*.

(3) "Tell me the word that sounds like pig," and give about four words like *sit*, *run*, *dig*, *ball*.

(4) Tell whether the beginning or the ending of these words sound alike:

(a) can	ran	tan	fan
(b) day	dig	den	dip

After some practice with this, ask the children to tell in what way the words in a series are alike. Use additional lists of words similarly related.

(5) Ask the children to give a word (*a*) that rhymes with *fall*; (*b*) that begins like *big*.

Children are likely to profit more in learning discrimination if the words are in sentences rather than in meaningless sequences. Listening to rhymes and jingles furnishes a delightful exercise. If familiar with the material, or on repetition of material, the children like to speak out the rhyming words when the teacher comes to them. With encouragement, children also like to make up simple rhymes, as the *cat* caught the *rat*, or the little red *hen* lived in a *pen*.

In all this work there is an excellent opportunity to encourage clear and precise enunciation in speech patterns. This can be done in such a way that the child finds the whole experience pleasurable. After the child begins to read, further training in auditory discrimination is given as required. This will vary with individual needs of the pupils and should be shaped to meet difficulties as they arise.

As noted in Chapter II, investigations have demonstrated that training in auditory discrimination facilitates progress in learning to read. Nevertheless, formal and intensive drill in discriminating *isolated* sounds tends to become artificial. Training to cultivate oral word discrimination should be associated with language development. Exercises like those listed above are most useful as an aid in learning to read when intimately integrated with experiences designed to develop linguistic facility. Hildreth (98), for instance, stresses frequent use of familiar words in oral communication together with clear enunciation for developing sensitivity to differences and likenesses in word sounds.

Use of Test Results and Teacher Ratings

The information obtained from tests and teacher ratings find two important uses in the reading readiness program. They may be employed to good advantage in grouping the children for instruction, and for discovering areas for emphasis in the instructional program.

Grouping

To provide an effective instructional program it is necessary to form some estimate of what the children can do. It is customary to divide a first-grade class into about three groups on the basis of their special instructional needs in the reading readiness program. The results of an intelligence test, a reading readiness test, teacher ratings and other available information should be used in the classification. The grouping necessarily must be tentative and flexible. A child may be shifted from one group to another on the basis of his growth in skills and on the basis of any evidence of special instructional needs. In the average classroom about three groups will be found practical. The following is suggested as a tentative initial grouping.

In the first group are placed the children who, in terms of available data, will make rapid progress in learning to read. A child placed in this group should have a mental age of approximately six years six months or greater, a centile rating of approximately 65 or greater on total score of the reading readiness test, above average language facility, a broad background of experience, and good personal and social adjustment. These children will need a minimum amount of reading readiness training. They may be expected to gain rapidly in classroom coöperation, independent study, and reading skill.

The second group will consist of "average" pupils. The child in this group should have a mental age between about six years and six years six months, a centile rating for total score in reading readiness between about 35 and 65, a medium background of experience and language facility, and be fairly well adjusted. These children will need up to about three months' training in reading readiness and may be expected to make normal progress in reading.

Pupils in the third group, for the most part, will be decidedly lacking in reading readiness. Also the slow learners will be found here. In other words, children in this group will fall below the standards of the other two groups. They will tend to be intellectually immature, to have an inadequate background of experience, and reveal relatively poor language facility. Some will need training

After some practice with this, ask the children to tell in what way the words in a series are alike. Use additional lists of words similarly related.

(5) Ask the children to give a word (a) that rhymes with *fall*; (b) that begins like *big*.

Children are likely to profit more in learning discrimination if the words are in sentences rather than in meaningless sequences. Listening to rhymes and jingles furnishes a delightful exercise. If familiar with the material, or on repetition of material, the children like to speak out the rhyming words when the teacher comes to them. With encouragement, children also like to make up simple rhymes, as the *cat* caught the *rat*, or the little red *hen* lived in a *pen*.

In all this work there is an excellent opportunity to encourage clear and precise enunciation in speech patterns. This can be done in such a way that the child finds the whole experience pleasurable. After the child begins to read, further training in auditory discrimination is given as required. This will vary with individual needs of the pupils and should be shaped to meet difficulties as they arise.

As noted in Chapter II, investigations have demonstrated that training in auditory discrimination facilitates progress in learning to read. Nevertheless, formal and intensive drill in discriminating *isolated* sounds tends to become artificial. Training to cultivate oral word discrimination should be associated with language development. Exercises like those listed above are most useful as an aid in learning to read when intimately integrated with experiences designed to develop linguistic facility. Hildreth (98), for instance, stresses frequent use of familiar words in oral communication together with clear enunciation for developing sensitivity to differences and likenesses in word sounds.

Use of Test Results and Teacher Ratings

The information obtained from tests and teacher ratings find two important uses in the reading readiness program. They may be employed to good advantage in grouping the children for instruction, and for discovering areas for emphasis in the instructional program.

Grouping

To provide an effective instructional program it is necessary to form some estimate of what the children can do. It is customary to divide a first-grade class into about three groups on the basis of their special instructional needs in the reading readiness program. The results of an intelligence test, a reading readiness test, teacher ratings and other available information should be used in the classification. The grouping necessarily must be tentative and flexible. A child may be shifted from one group to another on the basis of his growth in skills and on the basis of any evidence of special instructional needs. In the average classroom about three groups will be found practical. The following is suggested as a tentative initial grouping.

In the first group are placed the children who, in terms of available data, will make rapid progress in learning to read. A child placed in this group should have a mental age of approximately six years six months or greater, a centile rating of approximately 65 or greater on total score of the reading readiness test, above average language facility, a broad background of experience, and good personal and social adjustment. These children will need a minimum amount of reading readiness training. They may be expected to gain rapidly in classroom coöperation, independent study, and reading skill.

The second group will consist of "average" pupils. The child in this group should have a mental age between about six years and six years six months, a centile rating for total score in reading readiness between about 35 and 65, a medium background of experience and language facility, and be fairly well adjusted. These children will need up to about three months' training in reading readiness and may be expected to make normal progress in reading.

Pupils in the third group, for the most part, will be decidedly lacking in reading readiness. Also the slow learners will be found here. In other words, children in this group will fall below the standards of the other two groups. They will tend to be intellectually immature, to have an inadequate background of experience, and reveal relatively poor language facility. Some will need training

in reading readiness for a term. Others may not be ready to read for a year.

These groupings should be flexible. As soon as a child has gained proper development and skills, he should be shifted to the next higher group. Furthermore, there may be regrouping for specific different purposes. For example, a group may be formed for training in auditory discrimination, another for practice in language facility, and so forth. This procedure will lessen the need for individual instruction.

Method of grouping and the number of groups may vary to fit local situations. For instance, in a residential district where parents are competent, there may be no need for the low group; in a less favored district, there may be no high group, or the teacher may find it advisable to have a fourth or extra low group for relatively very immature pupils.

An item to keep in mind is that the limits of intelligence and readiness test scores suggested above for forming the groups are only tentative. There is nothing sacred in a test rating of 65 or 70 centile score, or six years six months mental age as the lower limit of group one. For instance, the teacher may find a child with a mental age of seven years whose background of experience and language facility suggests that he should be placed in the second group for a time. And another pupil with a mental age of only six years three months may be so well developed in other respects that he should be placed in group one. The teacher will depend upon her appraisal of the total pattern of readiness for placement of the child and for moving the child from one group to another as development progresses.

Guides in readiness instruction

Test scores and teacher ratings are also employed to good advantage as guides in readiness instruction. Each of the abilities measured on a reading readiness test, as well as degree of experience and language facility, may be improved by instruction. If a child is relatively deficient in language facility or obtains a low centile score on one or more aspects of measured reading readiness, he should be given training in the types of experience which will

increase those abilities. The lower the score, the more the need for special instruction.

Let us look at two contrasting cases. Jane, on entering grade one, has a mental age of seven years, manifests good adjustment in personal and social situations, has a good command of language and gets a centile rating of 81 on total readiness score. On all parts of the readiness test but rhyming she receives centile ratings of over 70. On the rhyming test she has a centile rating of only 38. Jane should make rapid progress in learning to read. Although she should be placed in group one, the teacher should provide special training in auditory discrimination. This may be done in part by including her in another group when auditory discrimination is being taught.

Jack's pattern of abilities is somewhat different than that of Jane. He has a mental age of six years five months, in talking he uses relatively simple sentences that are not well coordinated with each other, and his centile rating for total score on a reading readiness test is 51. His scores on word form and on letter form matching are both low, 28 and 40 centiles respectively. The other scores range from 60 to 72. Jack should make about average progress in learning to read. Several weeks of training in the reading readiness program are indicated. Special help should be provided in language usage, and in visual discrimination of words and letter forms. He will profit by both direct and vicarious experience as a basis for development of vocabulary and concepts. Jack should be placed in group two for instructional purposes.

Other children who are relatively low in all or nearly all scores on a reading readiness test will need an extended period of reading readiness instruction. Manuals, such as that of Gates (61) give suggestions for the use of test scores as a guide for instruction in reading readiness.

Providing a Background of Experience and Information

Earlier in our discussion it has been emphasized that printed words will have significance for the child in proportion to the degree that they stand for concepts and information derived from

his experience. In a sense, one reads with his experience. There are two avenues of experience, direct and vicarious. Direct experience is concerned with first-hand contact with things, as a ride in a train, a trip to the zoo, or caring for a pet kitten. One gets direct experience through seeing, hearing, tasting, smelling, and feeling objects. Next best is vicarious experience, that is, second-hand or indirect experience. It consists of an extension of, or a supplement to direct experience. It may come from pictures, maps, models, motion pictures, stories, and so on. Reading, of course, is a source of vicarious experience and therefore must be a supplement to (or based upon) direct experience.

Experience and meanings

Concepts (or meanings) and information together with the resulting vocabulary enrichment derived from experience constitute the core of the reading readiness program. It is essential, therefore, that appropriate worthwhile experiences be furnished the children. Much careful thought has been given this problem. The consensus is that the experiences should be varied, that they be appropriate to the needs in the early reading program as well as provide a valuable and lasting enrichment of knowledge, that they fulfill the needs of the particular class being taught and be within the comprehension range of that class, and that they have value for developing desirable habits and attitudes. In general, the program should progress toward breadth of fundamentally enriching experiences which stimulate an enquiring attitude in the child. Enriching experiences will, of course, provide both pleasing emotions and knowledge.

Experience programs

Programs for providing and extending experience and information during preparation for reading are well developed. Details may be found in Betts (7), Hildreth (98), Monroe (129), McKee (126), and Witty (190). They include such activities as trips to the zoo, the post office, the fire station, stores, a farm, the library, railroad and bus stations, mills and factories. These first-hand experiences should be supplemented with appropriate vicarious

experiences along the lines mentioned above, that is, pictures, discussion, stories, and so forth.

Children should be well prepared for such trips. In this preparation, the teacher explains the things that may be seen and what may be understood about them. Pictures are examined and related experiences shared. The trip is planned in detail. After the trip, the experiences are discussed and evaluated. This will help to fill out aspects of the experience not noted by some of the children. Perhaps a second trip to the same place will be advisable to satisfy interests and add further information.

Development of Language Facility

Readiness for reading is fostered by improved language facility. The greater the ability to comprehend material presented in oral form, and the greater the proficiency in the use of oral language, the more ready the child is for beginning reading. Various factors may improve language facility. For instance, the child learns to become a good listener. As stated by Gates (63, p. 153), the child has acquired the "story sense" when he has learned to listen to, understand and follow a story told or read to him. Some children are deficient in this skill on arrival at school. Guided practice will improve the ability to select out and organize important episodes as the story progresses and relate these meanings to those encountered later in the story. Thus a child may learn to anticipate what is going to come next. This use of context to anticipate what comes next in a story is a great aid to the child in learning to read. A part of the pre-reading program, therefore, consists of reading and telling stories to the children of a length and complexity appropriate to their needs and background. For the lowest group, the teacher should start with short, relatively simple stories and gradually work up to stories of the length and complexity of those which will be encountered in their early reading. The teacher can promote comprehension of related sequence of events in other classroom situations. Examples include the sequence of events to be followed in organizing a party, the reporting of community news events, the teacher's directions for classroom activities, and

green hues. These children should be taught to interpret traffic signals in terms of brightness differences and placement of the colors (red above the green usually). As a matter of fact, most "red" and "green" objects, including traffic lights, are not pure colors. Many are tinged with other colors such as blue or yellow to which red-green color-blind persons are sensitive. Thus the "green" traffic light is ordinarily a blue-green color. This lack of purity aids color discrimination in some instances.

Reading pictures

Children should be taught to interpret or to "read" pictures. Interest in pictures develops at an early age and is maintained as the child grows older. This has led to the practice of illustrating children's books profusely. Satisfactory interpretation of pictures which accompany stories furnishes important context clues to word perception in reading. Ordinarily these clues do not attain maximal usefulness unless children receive considerable training in picture reading. When presented with a picture and asked to describe it, a child may merely enumerate part of the objects present such as boy, girl, dog, mother, father, tree, and so on. He may be totally incapable of grasping the implication of the situation depicted. For such a child, training for interpretation should begin with relatively simple action pictures such as a dog and boy running. This could be followed by a dog running with a cap in his mouth and the boy after him. With some guidance the child will learn to perceive that the dog is running away with the boy's cap and that the boy is trying to catch the dog to recover the cap. By gradual transition the child will eventually be able to interpret a complex picture as meaning that a family has traveled in their car to a park for a picnic, the basket of food has been placed on the ground near a spread-out cloth for lunch, and that while Dad is starting a fire, their dog has started to eat the lunch in the basket. Training in picture reading teaches the child to note all the details in a picture and their inter-relation in telling a story. There are abundant sources of appropriate pictures in magazines, newspapers, and posters as well as in books.

Training should be given also in interpreting series of pictures illustrating the unfolding of action in a story. The technique of telling a story by sequences of pictures is employed in children's books as well as in comic strips and comic books. After gaining some proficiency in picture interpretation, children are delighted in reading them and rapidly gain in proficiency. In fact, many children learn to follow the story in comic strips before they can read. To foster picture reading, many pre-reading materials now contain stories in picture sequences.

Left-to-right progress in reading

The left-to-right sequence of perception accompanying eye movements along a line of print in reading has to be learned. Unless specifically trained to begin at the left and progress toward the right, it is just as natural for the young child to look at a picture or series of words from right to left as in the reverse direction. During the pre-reading period, the child needs specific training so that he will readily orient himself to the left-to-right direction of attack upon words and lines of print when he starts to read. To facilitate this, the child should be taught to identify his right and left hand, and to grasp the concept of right and left in relation to the sides of objects in the schoolroom such as the bulletin board, the blackboard, the desks, the page of a picture book, and so on. This can be accomplished largely through incidental learning or games rather than by formal drill. Thus the teacher can remark that she will write or draw something at the left side of the blackboard as she starts to do it. When the teacher asks the children to re-arrange material on the bulletin board she can ask them to post the material from left to right. A sequence of action pictures can be drawn from left to right on the blackboard and interpreted in the same direction. Children can be trained to work from left to right in their readiness work books. Some picture books are designed for this purpose. The resourceful teacher will frequently bring in the notion of left and right in instructions, in play, in arrangement of materials, and so on, so that the concept will become well established. At every opportune place, therefore, as

the child approaches the time when he will begin to read, the left-to-right sequence of perception should be emphasized. For example, when the teacher writes on the blackboard, the child can be shown that the words are formed from left to right, and that she then reads the material in the same order, following with a pointer. An essential aspect of pre-reading work is to set up this proper directional orientation.

Desire to read

Books are introduced early in the pre-reading program in order to develop an interest in books and a desire to read. There should be in the classroom a library corner with proper facilities for displaying various types of books. The children should be encouraged to examine the books and to make selections for the teacher to read aloud to them. Ordinarily, interest in a new book can be stimulated by reading selections aloud to the class and by showing some of the pictures. Children should be taught how to handle and manipulate a book. By discussion and example, the teacher instructs the children how to hold the book, how to turn the pages, and how to keep it clean and free from marks. As part of this training, the children should be frequently checked to insure proper habits in use of the books.

Work habits

During the readiness program it is desirable to develop good work habits with respect to both group and individual tasks. Effective learning in the group situation requires participation by each child and also coöperation. Children should learn to complete tasks whether assigned by the teacher or chosen by themselves. Guidance of the children to foster independence in their activities is also necessary. This training may be concerned with care of materials in the classroom, or with completion of a task with only partial or with no directions. The teacher should be generous with praise in approval of good performances. This is very important. Parenthetically it may be pointed out that in general it is the best practice to praise the *accomplishments* of a child rather than the child himself.

Reading readiness materials

A great variety of pamphlets and books with instructions for their use in the reading readiness program are now available. In addition, workbooks which accompany some basal series of readers contain materials organized to develop reading readiness. They contain pictures and exercises, arranged in developmental sequences, designed to foster the growth of the abilities essential for beginning reading. The left-to-right progression of perception necessary in reading may be stressed. The main emphasis, however, appears to be upon developing perceptual readiness for reading. While many of these books are valuable, they do not constitute a complete reading readiness program. Nevertheless the better ones do foster a more gradual introduction to reading, which is desirable, and they can be used to advantage as a part of a well organized reading readiness program.

Summary

Progress in learning to read is most rapid when all factors conditioning reading readiness are optimum. Many of these factors can be improved by instruction prior to and during beginning reading. Systematic training in the following areas is a legitimate part of the readiness program: personal and social adjustment, visual and auditory discrimination, experience and information, verbal facility in communication, desirable habits of attention and work, interpreting pictures, left-to-right progression of the eyes in reading, and development of a desire to read. Strengths and weaknesses in the various areas are appraised by reading readiness tests or by teacher observations and ratings, or both. Appraisal of the total pattern of reading readiness (M.A.; scores on readiness test; teacher ratings) of children will provide the bases for classification into groups for readiness training. In this way instruction is adjusted to meet the individual needs of each child. Through appraisal of progress in the readiness program, the teacher decides when a pupil has attained the mental maturity, the background of experience, the verbal facility, the behavior patterns, and the

degree of adjustment which indicate that he is ready to begin reading with a good chance of success.

Selected References

- ADAMS, Fay, GRAY, Lillian, and REESE, Dora, *Teaching children to read*. New York: The Ronald Press Company, 1949, chaps. 4, 5, 6.
- BETTS, Emmett A., *Foundations of reading instruction*. New York: American Book Company, 1946, chaps. 8-19.
- BOND, Guy L., and WAGNER, Eva L., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chaps. 5, 6, 7.
- BRISTOW, William H., *Reading readiness in the first grade*, Educational Research Bulletin No. 5. New York: Board of Education, City of New York, 1942.
- DOLCH, Edward W., *Teaching primary reading*. Champaign, Ill.: The Garrard Press, 1941, chaps. 2, 3, 4.
- GATES, Arthur I., *The improvement of reading*, 3rd ed. New York: The Macmillan Company, 1947, chap. 6.
- HARRIS, Albert J., *How to increase reading ability*, 2nd ed. New York: Longmans, Green and Co., 1947, chap. 2.
- HARRISON, M. Lucile, *Reading readiness*, rev. ed. Boston: Houghton Mifflin Company, 1939.
- HILDRETH, Gertrude, *Reading Programs in the Early Primary Period, Reading in the elementary school*, Forty-Eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, chap. 4.
- *Readiness for school beginners*. Yonkers, N. Y.: World Book Company, 1950.
- McKEE, Paul, *The teaching of reading in the elementary schools*. Boston: Houghton Mifflin Company, 1948, chap. 7.
- MONROE, Marion, *Growing into reading*. Chicago: Scott, Foresman and Company, 1951.
- RUSSELL, David H., *Children learn to read*. Boston: Ginn and Company, 1949, chap. 6.
- Reading, Iowa elementary teachers handbook*, Volume II. Des Moines: Department of Public Instruction, 1943, pp. 31-44.
- STONE, Clarence R., *Progress in primary reading*. St. Louis: Webster Publishing Company, 1950, chap. 8.
- WITTY, Paul, *Reading in modern education*. Boston: D. C. Heath & Company, 1949, chap. 3.
- WRIGHTSTONE, J. Wayne, *Determining readiness for reading*, Educational Research Bulletin No. 6. New York: Board of Education, City of New York, 1943.



THE STORY HOUR

The Problem of Attention

One of the problems of immediate concern to the first-grade teacher is attention in the classroom. She will need to choose techniques and organize teaching procedures in such a way that attentive behavior favorable to learning is achieved. It is natural for a child to attend to something and for attention to shift from one thing to another. It is not always easy to maintain the attention of several children on the same activity for the 15 to 20 minutes ordinarily employed in a reading lesson. The successful teacher, however, does succeed in holding the attention needed for successful group teaching so that the children learn to read. Dolch (40) describes various techniques which may be employed to develop the attentive behavior desirable for effective learning in grade one, either in the group work of the reading class or in the individual seat work required.

Inattention

First let us note some of the difficulties and obstacles that the teacher should recognize and attempt to avoid. Maintaining attention of 100 per cent of the pupils in a first-grade class for any appreciable length of time is seldom achieved. And the larger the group, the more difficult it is to maintain uniform attention. Variable rather than uniform attention is natural in a first-grade group. Furthermore, it is undesirable for the teacher to attempt to get and to hold attention by shouting, scolding, coercion or excessive moving about and gesturing before the class. Any attempt to maintain attention competitively by calling on one child to report the mistakes of others is unfortunate because it tends to discourage the slower learners and to enhance show-off behavior in the brighter pupils. Nor should the teacher expect simple docility alone to develop attentive behavior. This latter procedure will fail to provide strong motivation for attending. Docile compliance in doing what is requested or directed often indicates unhealthy inhibition of natural impulses.

Developing attentive behavior

In general, all situations which may foster the building up of habits of inattention should be avoided.

The degree of attention required for learning to read, on the other hand, should result from dynamic behavior patterns and positive attitudes which can be fostered by favorable classroom environment and teaching procedures. Some of these follow:

The method of *seating* the class for beginning reading should be that which is most favorable for maintaining pupil attention. Placing five to eight children in chairs in a semi-circle about the teacher creates an intimate group close to the teacher and somewhat isolated from the rest of the classroom. The mere moving into this position tends to produce in the children an attitude favorable for attending to a learning task. For certain types of reading, the grouping may be around a table. Once organized, like other classroom activities, the group seating becomes an habitual routine which occurs smoothly, and like other constantly recurring daily activities such as taking one's own seat and getting out materials promotes attention to reading and to other learning activities.

Avoidance of *fatigue* and *relief from tension* are necessary. Continuing attention is difficult or impossible under fatigue or prolonged tension. Avoidance of long periods that require sustained attention, and appropriate changes in posture and kinds of activities are desirable for relaxation.

Interest is one of the strongest motivators of attention. Attention is readily attained and held when appropriate subject matter, materials, and methods of teaching are interesting to the pupils. When children are interested, therefore, the problem of maintaining attention is minor. The personality of the teacher is, of course, a factor conditioning pupil interest. Enthusiasm, interest, and understanding on the part of the teacher is contagious.

Expectation of equal opportunity for successful participation with appropriate approval from the teacher produces anticipation which helps to maintain attention. Keeping the material within the ability of each child and arranging for regularity of satisfying

participation at frequent intervals will ordinarily hold attention provided the rotation among pupils is smoothly coördinated and the story moves along with a minimum of interruption and at a fairly rapid pace.

Purposeful reading tends to be attentive reading. The children should be prepared for the story reading by appropriate discussion, sharing of related experiences and the like. Anticipation will generate interest and attention.

Attention during seatwork. A large part of any class will be engaged in seatwork while a small group is engaged in reading. The seatwork should be interesting, purposeful, and of educative value as well as designed to promote independent work habits. At all times the child should know what is called for and how to do it. The sustaining of attentive seatwork depends upon how efficiently it is organized. When one assigned task is finished it is desirable that the child know what to do next so that he may progress smoothly from one activity to another with a minimum of delay. The teacher will of course organize seatwork activities to suit her program and the needs of her pupils. Suggestions on the organization of seatwork are given in Betts (7), Dolch (40), the *Iowa Elementary Teachers Handbook* (103), and guidebooks which accompany basic reader series.

In general, the teacher should not expect sustained attention over long periods of time. There should be provision for relaxation, and for shifting to another type of activity. In addition to relieving strain, this will capitalize on the natural tendency to be interested in and to attend to new tasks.

Administrative Problems

Class organization in the first grade depends upon the administrative policy of the school system as well as upon the teacher. Whatever the teacher's training, there must be some adaptation to school policies in such a matter as methods of grouping for teaching. This has been considered above in Chapter IV. It may be emphasized again here that the grouping in any class should be flexible. Test scores of various kinds, as intelligence and reading

readiness scores, and teachers' ratings are not infallible. Final evaluation of the effectiveness of any grouping must be in terms of the child's progress in learning to read when exposed to teaching. Effective organization for teaching implies that the pupil must be in the group where his needs for learning will be met. A child will, therefore, be moved from one group to another as indicated by the teacher's appraisal of progress or lack of progress in learning. Initial grouping in grade one must necessarily involve a tryout period which provides a check on the effectiveness of the grouping. It would be unusual if this tryout revealed no need for re-grouping.

Should reading be postponed?

The postponing of reading by administrative action raises problems. This is true whether a child is kept in the kindergarten till he is older, or whether reading is delayed until the second or the third grade. If reading is postponed, other well organized and worthwhile activities must be provided. Furthermore, some children are ready to start reading at the beginning of grade one. In any case the child must eventually learn to read, and, as pointed out by Dolch (40), to postpone reading does not mean that the child will not have to be taught reading. Also the so-called slow start in reading produces problems when applied to a class as a whole, a fact that holds even though emphasis is placed upon well rounded development of the child in the slow start and even though the children do catch up in reading by the end of grade three. Stone (160) ably sums up the case against any general postponement of reading instruction: (a) The results of controlled experimentation provide no adequate justification for such postponement. (b) Postponement of beginning reading does not appear to solve the problem of non-readers and retarded readers. Nor are we justified in setting an arbitrary mental age of six years and six months as the time to begin reading. In many schools,—as Stone recommends,—the time to begin reading instruction is determined by individual needs and abilities. When a pupil is ready, teaching of reading should begin. This is determined by the teacher in terms of readiness which involves evaluation of learning capacity, results

of reading readiness tests, background of experience, emotional and social adjustment, physical status and other pupil needs. In such a program, reading instruction is adjusted to individual differences from the beginning.

The situation is complex and there are arguments for and against any of the above procedures. One procedure may be more appropriate than another for a particular school and no one procedure need be emphasized to the exclusion of all others in every situation. For instance, activities which promote well-rounded child development can, and frequently are, employed in a program which allows a child to begin to read when he is ready. The teacher provides for individual needs, whatever they are: experience, verbal facility, social and emotional adjustment, learning to read, and so on. The writer is in favor of beginning reading instruction when the child is ready to learn and when it will fulfill his definite need. The kind of instruction he gets will be determined by individual capacity, experience, adjustments and rate of progress. Reading is only one part, though an important one, of the whole integrated program for fostering well-rounded child development as pupils progress through the grades. While reading instruction should not be overemphasized in grade one, it should be given proper weight in the total first-year program. And always remember that the rôle it plays will vary according to the individual needs of the pupils.

Promotion policies

A further administrative problem which complicates reading instruction concerns promotion policies. These policies vary a great deal from one school system to another. Irrespective of promotion policies, children beyond the first year in school should have reading instruction suited to the level of proficiency attained at the end of the preceding year. Thus, at the beginning of the second year some children will be able to handle second-grade readers, others first-grade readers, and still others, only primers or pre-primers. By the third year, the spread in reading proficiency will be even greater. In other words, there can be effective teaching of reading only when the teacher provides instruction adapted to

individual differences in proficiency whether the children are in the first grade or in subsequent years of school.

The Reading Program in Grade One

Various approaches, teaching methods, and emphases are employed in teaching reading in the first grade. Irrespective of method of approach and areas of emphasis, there are certain fundamental essentials that must be provided for in any program for development of skill in reading. For effective teaching of reading, it is assumed of course, that the teacher is properly trained. Following is a list of the teaching jobs that should be considered essential in beginning reading:

Development of Readiness for Reading. Following the analysis of reading readiness at the beginning of grade one, each child should receive the guidance necessary to prepare him for success in learning to read. This frequently requires training beyond that discussed in previous chapters.

Acquisition of a Satisfactory Stock of Sight Words. Success in initial as well as later reading requires a supply of sight words sufficient to assure some independence in reading. The development of a sight vocabulary, therefore, becomes one of the first instructional jobs in beginning reading.

The Development of Word Meanings. Systematic instruction for development of word meanings is needed in grade one as well as in the higher grades.

The Development of Word Identification and Recognition Techniques. Satisfactory progress in reading depends to a large degree upon the ability to identify and recognize the words which stand for word meanings already in the oral vocabulary of the child.

Introduction to Reading. The procedure employed by a teacher to introduce a child to reading depends somewhat upon the training and experience of the teacher, the type of school, and the kind of children in her class. The essential thing is to employ a procedure which leads to learning what words say. Correct matching of sight and sound is necessary in the development of real reading. To achieve this, the well trained teacher will not only choose appro-

priate procedures, but also will modify procedures as occasion demands.

Transition to Book Reading. Irrespective of the preliminary approach, the child eventually begins to read books. A program of systematic instruction is necessary to assure successful and enjoyable reading from books.

Developing Independence in Choice and Use of Books. No reading program can be called successful until the child has achieved some independence in choice and use of books. Only then will he enjoy reading experiences from a variety of sources and in many different kinds of material.

Evaluation of Reading Progress. Throughout the first grade (as well as later) it is necessary for the teacher to keep informed on the progress of each pupil in her class, not only to note and remedy deficiencies, but also to facilitate guidance for steady progress in the acquisition of reading skills.

Continued Development of Reading Readiness

The first-grade teacher must decide when systematic instruction in reading should begin for each of her pupils. In general, a child is ready for this instruction when he is able to participate successfully in reading activities and to derive satisfaction from that participation. Methods of determining readiness for reading and techniques for guidance have been discussed in earlier chapters. A few children, on arrival at the first grade, may have profited by incidental exposure to reading situations or by informal training. Others, because their intellectual development is satisfactory and their background of experience is broad, will be practically ready to read and eager to begin. After a short period of preliminary orientation, these children will be ready for systematic reading instruction. Other children will range from those who need a few weeks to those who may need from a semester to a year of readiness work as well as the intellectual development to be gained during that length of time. Such variations imply that the beginning of formal instruction in reading may occur at any time throughout the school year. Groupings may be formed according to the sug-

gestions in the earlier chapters. In the typical first grade there may be three to four groups. Reading instruction begins as the children become ready for it. In both the readiness program and in reading instruction, individual needs of the child will determine the instructional program for that child. The grouping should be so flexible that a child may be moved from group to group in terms of his needs. In specific cases, there will be occasion for individual instruction and guidance to fulfill needs and overcome difficulties.

The need for continued readiness guidance

The readiness program is not completed as soon as the child begins formal reading. As noted earlier, a developmental reading program implies that reading readiness is an integral part of the teaching program at all instructional levels. The comprehension involved in the thinking side of reading requires preparation in new concepts and language constructions that will be encountered as the child moves on to new types of material. This will be considered in more detail in the chapters on vocabulary and comprehension development.

In addition to the readiness program tied in with developmental reading, there will be need in the primary grades and more especially in the first grade, to continue to teach the skills necessary for beginning to read as outlined in the previous chapter. Instruction in readiness activities should not cease as soon as the child begins formal reading. Rather, they should be continued along with formal instruction in reading. Thus the teacher will continue to guide the pupils in perfecting the left-to-right sequences of perception in words and lines, in developing more satisfactory visual and auditory perception, in clear enunciation of words while talking, and in adjustment to school activities. In addition there will be a continuing need for those activities which develop concepts and broaden vocabulary; which increase efficiency in listening to stories, in discussion and in other activities designed to develop language facility. All this implies a continuing program of direct and vicarious experiences. In addition to fostering more effective progress in learning to read, the continuing readiness program will increase interest in and a desire for reading to fulfill needs. This

is not only an important instructional task but a vital one if the reading program is to become maximally effective.

Developing an Adequate Sight Vocabulary

By the time that the average child has reached the beginning of grade one, he has acquired a rather extensive listening and talking vocabulary. He both understands and uses words in a number of contexts. This helps to satisfy needs for self expression and facilitates such adjustments as communication with playmates and with parents. This vocabulary as a tool for understanding and utterance expands during the reading readiness period. During this period the child has further developed his discrimination of word sounds and has learned that printed symbols differ. He is now ready to associate word sounds with the printed symbols which represent them. One of the first instructional tasks is to guide the child in acquiring a supply of sight words needed for assuring success in the beginning of formal reading. These the child must recognize at sight and they will include most of the words encountered in the initial experience of formal reading.

A sight word is one that the child recognizes at once in any context or out of context. As the child sees the word *four*, the word sound comes to him. That is, he now grasps the idea that the word *four* has a name just as a familiar object such as a chair has a name. These sight words consist of names of common things: colors, actions (such as *boy*, *red*, and *run*) and also the more common and frequently used adjectives, conjunctions, prepositions, pronouns, and adverbs (such as *big*, *and*, *in*, *I*, and *fast*). All these words should be in the understanding vocabulary of the child and should be the words which will be encountered in early reading activities. In the process of building up a stock of sight words, the addition of new words must not be at the cost of the forgetting through disuse the ones acquired earlier. There must be, therefore, *continual repetition of the old words in meaningful situations* all the while the new ones are gradually added. This process is designated *vocabulary control* and, as pointed out by Dolch (40), it is absolutely essential to maintain and to increase the sight vocabulary

effectively. In properly written elementary readers, new words are introduced slowly and the ones previously added are used repeatedly.

After the child begins formal reading it will be found necessary to continue adding to the initial supply of essential sight words as the child progresses through grades one, two, and three.* To do this it is necessary to decide what are the most important sight words. It is not only impossible but unnecessary and uneconomical to try to add to the child's sight vocabulary at this time all words encountered in primary reading. The practical thing is to add those words which will continue to appear in reading material as the child progresses from grade to grade.

The Dolch basic sight vocabulary

Dolch (41), through analysis of word lists for primary grades, has compiled a basic sight vocabulary of 220 words. They are listed in Table 1. He calls these words *basic* because they are the *service words* used in all writing. They consist of common conjunctions, prepositions, pronouns, adverbs, adjectives, and verbs. Nouns are not included in this list since each noun is tied to specific subject matter and not considered by Dolch to be basic to *all* elementary reading. Although a good number of nouns will of course become sight words, they are not *service words*, as are those in the categories just listed. Dolch does list separately 95 of the most common nouns. They are given in Table 2. Stone (160) has argued that these commonly occurring nouns should be included in the basic list, for, although these nouns may not be classified as *basic* as defined by Dolch, they do occur frequently enough in children's books to justify their addition to the child's sight vocabulary at a relatively early date.

The basic nature of the 220 *service words*, which Dolch puts by themselves in order to call special attention to their function, is revealed by the frequency of their occurrence. Dolch is able

* Sight words are, of course, added to one's vocabulary throughout the school years and later. At present, however, we are concerned with techniques for building up the supply of sight words essential for successful reading during the primary school years.

TABLE 1

THE DOLCH BASIC SIGHT VOCABULARY OF 220 SERVICE WORDS *

a	could	had	may	said	under
about	cut	has	me	saw	up
after		have	much	say	upon
again	did	he	must	see	us
all	do	help	my	seven	use
always	does	her	myself	shall	
am	done	here		she	very
an	don't	him	never	show	
and	down	his	new	sing	walk
any	draw	hold	no	sit	want
are	drink	hot	not	six	warm
around		how	now	sleep	was
as	eat	hurt		small	wash
ask	eight		of	so	we
at	every	I	off	some	well
ate		if	old	soon	went
away	fall	in	on	start	were
	far	into	once	stop	what
be	fast	is	one		when
because	find	it	only	take	where
been	first	its	open	tell	which
before	five		or	ten	white
best	fly	jump	our	thank	who
better	for	just	out	that	why
big	found		over	the	will
black	four	keep	own	their	wish
blue	from	kind		them	with
both	full	know		then	work
bring	funny		pick	there	would
brown		laugh	play	these	write
but	gave	let	please	they	
buy	get	light	pretty	think	yellow
by	give	like	pull	this	yes
	go	little	put	those	you
call	goes	live	ran	three	your
came	going	long	read	to	
can	good	look	red	today	
carry	got		ride	together	
clean	green	made	right	too	
cold	grow	make	round	try	
come		many	run	two	

* Reprinted with permission of the author and the Garrard Press.
 These basic service words may be taught with the Basic Sight Vocabulary Cards or with the Group Word Teaching Game (both published by the Garrard Press, Champaign, Ill.)

TABLE 2
THE DOLCH LIST OF NINETY-FIVE COMMON NOUNS *

apple	dog	horse	Santa Claus
	doll	house	school
baby	door		seed
back	duck	kitty	sheep
ball			shoe
bear	egg	leg	sister
bed	eye	letter	snow
bell			song
bird	farm	man	squirrel
birthday	farmer	men	stock
boat	father	milk	street
box	feet	money	sun
boy	fire	morning	
bread	fish	mother	table
brother	floor		thing
	flower	name	time
cake		nest	top
car	game	night	toy
cat	garden		tree
chair	girl	paper	
chicken	goodbye	party	watch
children	grass	picture	water
Christmas	ground	pig	way
coat			wind
corn	hand	rabbit	window
cow	head	rain	wood
	hill	ring	
day	home	robin	

* Reprinted with permission of the author and the Garrard Press. These widely used nouns may be taught with the Picture Word Cards, Garrard Press, Champaign, Ill.

to show that about two-thirds of the words occurring in reading material of the primary grades are in his basic sight vocabulary of 220 service words. Furthermore, close to 60 per cent of the running words in most of the books examined in grades four to six were in the basic list of 220. While this list of service words admittedly is not perfect, it can be very useful to the teacher. It is suggested that recognition of these service words be emphasized from the beginning of reading. They can be added to the sight vocabulary as they are met in the reading material used. Dolch

suggests various devices, such as flash cards and word games for teaching the words. With normal progress, second-graders know about half of the words and third-graders practically all of them. Lack of mastery of these words may be a factor in bringing about reading retardation. Knowledge of the words may be easily checked by going through the list. Special arrangements should be made to teach those not recognized at sight at grade three or higher.

As the child progresses with his reading he will in the normal course of events gradually accumulate sight words in addition to the basic list. These words come from such sources as experience charts and reading books. According to Dolch (40), the average child at the end of grade one has a sight vocabulary of about 200 words. A few able children may have more than twice this number.

The initial sight vocabulary is taught in various situations and by such means as labels and signs placed on objects about the classroom, experience records, and reading in books. At first, the child is repeatedly told the name of the word until it becomes a sight word. As the child makes some progress in formal reading, he will make use of word identification as well as word recognition techniques in adding sight words. These techniques will be discussed below.

Development of Word Meanings

The acquisition of word meanings is basic in learning to read. A new word is first incorporated in the understanding and the speaking vocabulary. Then, when the new word has been associated with the printed symbol which represents it, it becomes part of the child's reading vocabulary. Thus the normal sequence is acquisition of a word's meaning followed by the identification and recognition of the printed word.

Word meanings are at first derived from experience. These meanings are clarified and enriched by additional experience with relevant objects, situations, and events. Furthermore, verbal facility in communication depends largely upon meanings derived

from experience. In other words, the child should be provided with opportunities to use freely the words he has recently acquired in conversation. The broader and richer a child's experience, therefore, the better opportunity he has to acquire the word meanings and the verbal facility essential for satisfactory progress in learning to read. The development of word meanings begins systematically in the readiness program and continues throughout the grades. The details of this program are discussed in Chapter IX.

Development of Word Identification and Recognition Techniques

When the child possesses an adequate initial sight vocabulary, he is able to begin reading material which is largely composed of these words. As a new word is encountered its pronunciation is furnished by the teacher and the child repeats it while looking at the word form. After several such repetitions, as the word is met again and again in context, the word form is immediately recognized and the pronunciation given as the child perceives it. However, if only this technique of word recognition (accumulation of sight words) were available to the child, not only would progress in reading be slow and tedious but development of independence in reading would be impossible. The child needs techniques for *independently* identifying the sound or pronunciation that belongs to a new word form so that the sound may be associated with the printed word form to facilitate recognition when the word is met again. Since the word to be identified is in the listening and oral usage vocabulary, we are concerned here only with development of identification and recognition techniques that can be employed independently by the child. At the earliest stages of reading, the first time a new word is encountered by the child, its correct sound can be identified for him. Later, he learns to identify new words by himself. The association of the sound with the visual word form on the initial identification and during subsequent contacts with the word results in greater familiarity and easier recognition. What in the past has been termed *word recognition techniques* is more accurately

designated as *word identification and recognition techniques*, for the first step is to identify the sound that goes with the visual form of the new word. In the remainder of this book when the term *word recognition* is employed, it is with the understanding that the initial step in developing word recognition involves word identification.

The development of effective word recognition techniques constitutes an important part of reading instruction. There are several such techniques. The more important are picture clues, verbal context clues, word-form clues, phonetic analysis, structural analysis and use of the dictionary. At this point the nature of each of the techniques or clues will be briefly stated and its application noted. Ordinarily more than one technique or clue is employed by the efficient reader to identify a new word. Later in Chapter VIII, the techniques employed in word recognition will be discussed more fully.

Picture Clues. In the previous chapter it was emphasized that children should be taught to "read" pictures during the readiness program. The child who has acquired the ability to read or interpret pictures will soon learn that pictures frequently furnish clues to the recognition of words. Study of a picture will frequently help to anticipate the plot of a story and help to identify the characters and disclose what they are doing.

Verbal Context Clues. Clues from the verbal context are extremely useful throughout all levels of reading. Context clues are derived from the meanings of those words in the sentence already known to the child. These meanings are used to obtain the pronunciation of the one or two new words in the sentence. Suppose that in the sentence "The mailman gave mother a *letter*" all words except *letter* are known to the child. With proper training in the use of context clues, the child will ordinarily infer the pronunciation of *letter* from the meanings of the other words.

Word-Form Clues. Many words have characteristic total shapes or configuration which may become important clues to recognition. Thus, such words as *apple*, *happy*, *story*, and *funny* are all five-letter words but each has a characteristic visual form in contrast with the others.

Attention to the visual characteristics of words developed through an active and vigorous effort to discover the essential features of the word form will provide clues for recognition when the word is seen again. When a new word is encountered, guidance in noting the characteristic features which determine the total configuration will enhance the possibility of recognizing the word when the word is next seen. Word form then, is a clue that operates to promote quick recognition of a word with which the pupil has already had some experience. It is absolutely essential in the development and extension of a sight vocabulary.

Phonetic Analysis. Independence in attacking new words is achieved only by the use of phonetic analysis along with the other word recognition clues. To develop into a good reader, therefore, it is necessary for the child to gain sufficient skill in phonetic analysis to sound out new words as an aid in recognition. The need of sounding techniques becomes increasingly obvious as the child progresses from grade to grade.

There is lack of agreement as to when phonetic training should be started. McKee (126) advocates that word analysis be taught early in grade one, considerably before 75 sight words are learned; that it be started during the time that the first pre-primer is being read; that certain initial consonant phonetic elements be taught as soon as two or three sight words containing that element have been mastered. Other authorities would delay any teaching of phonetics. Apparently pupils benefit little by direct teaching of word analysis until there is phonetic readiness. According to Dolch and Bloomster's findings (43), phonetic readiness is reached at about mental age seven. Some pupils will be ready at the beginning of grade one, others at later periods. The general practice has been to begin word analysis sometime during the second half of grade one.

Structural Analysis. Identification of those parts of a word which form meaning units or pronunciation units is structural analysis. These units may be parts of a compound word, a root word, a prefix or a suffix, and inflectional endings or syllables which make up a word.

The child who is making normal progress in reading will have

occasion to employ some of the simpler forms of structural analysis in first-grade work. This will be true with some inflected forms of certain nouns and verbs. Thus the child soon learns to handle the plural of nouns where *s* or *es* is added to the root word which is already a meaning unit for the child. The situation is similar with the inflected endings of verbs such as *s*, *es*, *ing*, and *ed*. Also he should learn to recognize the two familiar words that make up certain compound words such as *playhouse*. Both monosyllable and polysyllable words occur in first grade reading, although the former are much more numerous.

Use of the Dictionary. Eventually, in intermediate grades, the child will begin to use a dictionary as an aid in word perception. Beginning in grade one there should be some training preparatory for using the dictionary. This training will vary according to the particular teacher's program. For instance familiar words, one on each slip of paper, may be arranged in groups according to the initial letter of the word. Use of a picture dictionary provides another help. Children are readily taught to find these words by use of initial letters.

Coördination of Word Recognition Techniques. In any program for developing skill in word recognition, no technique should be overemphasized and none should be neglected. The aim is to promote a coördinated and well balanced use of the clues. This implies that the child be adequately acquainted with each type of clue or technique and that he know how to choose and how to coördinate them for unlocking a particular word. The child will need guidance and practice in choosing and in using the appropriate combination of clues. This training should begin in grade one.

Summary

The attention necessary for learning to read is fostered by a favorable environment and specific instructional procedures. These include a favorable seating arrangement when teaching a group, avoidance of fatigue and tension, maintaining interest at a high level, equal opportunity for successful participation, and purposeful reading.

Grouping for instruction should be flexible and so organized that at all times a pupil is in the group where his needs for learning will be met. When ready to read, teaching of reading should begin. At all times, instruction should be adapted to individual differences.

Additional aspects of the first-grade instructional program already considered include reading readiness, sight vocabulary, word meanings, and word identification and recognition. Some children who enter grade one will need additional readiness training before beginning to read. Development of a sight vocabulary sufficient to assure some independence in reading plays an important rôle throughout grade one. A program of broad and rich experiences provides the basis for acquisition of the word meanings essential to normal progress in reading. Instruction in the elementary use of techniques and clues for word identification and recognition is introduced in the first grade. The more important of these are picture clues, verbal context clues, word-form clues, phonetic analysis, structural analysis, and use of the dictionary.

Selected references on teaching reading in the first grade are listed at the end of Chapter VII.

CHAPTER VI

Reading in Grade One (*Continued*)

In the preceding chapter some of the fundamental aspects of the instructional tasks in teaching beginning reading have been considered: promotion of attentive behavior, continuation of the readiness program, providing an adequate supply of sight words, development of word meanings, and of word identification and recognition techniques. In the present chapter consideration will be given to other basic teaching tasks. These will include organization for well-balanced and effective instructional procedures, planning for initial reading experience, and use of experience charts.

Organization for Effective Teaching

It is generally recognized that teaching activities in the first grade, as well as later, should be organized to promote well-rounded child development. Effective teaching of reading is an important aspect of the total pattern of such activities. Its achievement involves use of the basic instructional principles which have been established through experiment and experience. To a large degree, satisfactory progress in reading proficiency through the grades depends upon successful mastery of the fundamentals in grade one. Effective teaching not only requires that the teacher be thoroughly acquainted with these basic principles and be enthusiastic about her job, but that she be flexible and versatile in choosing her instructional methods and in adapting the total pattern of instruction to fit the individual needs and abilities of the pupils. There should be no overemphasis upon any one method

or group of methods to the neglect of others. Nor are the basic principles separate items which are to be stressed one at a time. They form an overlapping pattern which, operating in coördination, produce effective teaching. In short, effective teaching is well planned teaching organized with proper perspective with regard to basic principles.

Throughout the preparation for reading in kindergarten and early first grade, *attitudes* which *condition readiness* for reading may be developed. Much of the readiness program is designed to foster a desire to learn to read. A comfortable and attractive environment while working with reading materials is a necessity. Positive working attitudes may be achieved by guidance aimed at developing responsibility, coöperation, and spontaneity, ability to handle materials adequately, clear understanding of what is to be done, skills necessary for the task, and awareness of progress and of success. The opposite side of the picture is avoidance of all unfortunate attitudes toward school and reading. Sometimes poor attitudes acquired prior to entering school need to be changed.

The *interest and motivation* necessary for success in learning to read are interdependent. Interest which provides motivation is derived from at least two sources: the individual interests which the child brings to the reading situation, and the interests developed by the teacher in her guidance of the pupil in directed reading activities. Motivation is perhaps the most potent factor determining success in learning and is intimately related to the operation of all other basic principles involved in learning. In the organization of reading instruction, therefore, the teacher should always have clearly before her the need for providing the drive that comes from adequate motivation. This is true whether the objective be enjoyment in the unfolding of a story, accuracy of comprehension, the effective use of word recognition clues, diversification of reading activities, or something else. When interest wanes, which is the same as saying motivation lags or disappears, the teacher should re-examine her organization of the lesson or the procedures she is using in guidance or instruction. Any one of many things may have happened. The material may be too difficult, prior development of the concepts involved may have been

printed or written, stand for sounds already in his oral usage. This is accomplished by matching sight of the symbol with the sound which the symbol represents. During the child's earlier experience, language has been predominantly sound patterns. In school he begins to learn that printed and written symbols represent the sounds in his oral language. Gradually, through repetition of the matching of sight and sound, the visual symbols more naturally arouse the sounds and meanings for which they stand. The sounds may be spoken aloud or they may merely be silent speech or thought. In order that the matching process may be accurate and effective, auditory and visual discrimination must be satisfactory. Furthermore, the teacher must be sure that the child is looking at and visually discriminating a word when its sound is given.

The amount of repetition required in the matching of sight and sound to assure that the association has become effective is ordinarily large, but varies from child to child. Instructional techniques which maintain close attention to the matching encourage relatively rapid formation of the association and maintain consistent progress toward learning to read. Dolch (40) emphasizes that reading aloud is necessary to check accuracy of matching sight and sound. Matching, of course, is not an end in itself. It is only a means of developing word recognition in learning to read.

The development of auditory and visual discrimination is also a necessary prerequisite to the phonetic analysis and visual analysis involved in mastering word recognition techniques. To identify and recognize a word by sounding out its components requires considerable proficiency in auditory discrimination. The child who cannot adequately discriminate between the sounds of such words as *house* and *horse* will make little progress in phonetic analysis. Similarly visual analysis requires proficiency in visual discrimination.

The Use of Phonetic Analysis. A strong emphasis upon phonetics as the method for teaching reading has serious limitations and as a sole method of instruction has been pretty much abandoned. Nevertheless, proper use of phonetics has not and should

not be dispensed with. In contemporary theory and practice, it is not a matter of whether to use or not to use phonetic analysis, but rather how to employ phonetics as an economical and proficient tool to promote word recognition in independent reading. At present the consensus is that a working knowledge of phonetic analysis should be acquired, and that the training be introduced as an intrinsic aspect of meaningful reading in a sequential pattern at appropriate times in the developmental stages of reading. To be effective, phonetic analysis must be accompanied by *visual analysis*. As a matter of fact visual analysis naturally precedes the sounding. It identifies the convenient pronounceable units of a word such as letters, phonograms, syllables, and any other common word elements. This guides the sounding in the phonetic analysis. So visual analysis aids the sounding procedure. Furthermore, visual analysis promotes ready recognition of words in the sight vocabulary of the child.

Oral and silent reading

Instruction in beginning reading may be primarily oral, entirely non-oral, or a combination of the two. Either extreme as the sole teaching method has its limitations. Too great an emphasis upon oral reading tends to habituate and perpetuate such vocalization practices as lip movements, and inner speech or sub-vocal pronouncing of words. The non-oral method advocated by McDade (125) and evaluated by Buswell (22) aims to eliminate all oral reading both at home and in school during the period covered by the first two grades. To prevent the handicap of vocalization tendencies, oral reading as advocated by these writers is to begin (in third grade) only after silent reading is thoroughly established. Nevertheless, as noted in Chapter I, Buswell's results reveal that differences in reading performance in grade three and in grade six were not significant when the usual oral plus silent and the non-oral groups were compared. As far as the findings to date indicate, there is no reason to abandon a judicious combination of oral and silent reading instruction in favor of a completely non-oral approach. In fact, evidence presented by Dearborn, Johnston, and Carmichael (35) suggests that certain assets which aid compre-

hension are lost when there is an overemphasis on silent reading. It appears that the natural tendency to stress important words in oral reading is associated with better comprehension.

The main argument against oral instruction in beginning reading is properly aimed at certain injudicious practices such as the following: (1) Emphases which encourage oral reading and vocalization on any and all occasions. (2) Forcing a child to read aloud in a group situation when inadequately prepared, in which case the frustration due to lack of success and the embarrassment due to the self-consciousness of an awkward performance often reduce the child's interest in learning to read. (3) An emphasis upon mechanical perfection in word calling and phrasing to a sacrifice of adequate comprehension or thought-getting by the reader. This tends not only to produce "word callers" weak in comprehension but also to prevent development of a satisfactory rate in silent reading. As pointed out by Stone (160), the teacher of beginning reading should appreciate the effect that her methods may have upon the subsequent "progress of her pupils in the more mature habits and attitudes required for economical and efficient reading" (p. 94).

Oral language is not only a dominant form of reaction but the principal mode of communication for the young child. When he enters school, the child is necessarily restricted in many ways if there is to be order in the schoolroom and if coöperative work habits are to be developed. To add to all the other restrictions a prohibition of the natural impulse to any vocalization in learning to read may become exceedingly frustrating to some children. Transition from vocalizing to thought-getting from visual symbols without vocalization must be learned as any other skill. In normal progress in learning to read under proper guidance there is a gradual transition toward less vocalization so that by the latter part of the third grade the child's silent reading ordinarily is done with little or no lip movements and is faster than oral reading. This transition is necessarily a gradual process.

Apparently some oral reading is standard practice in primary reading. Hildreth (96) points out that about half of the reading time in the first grade is spent in oral reading. In fact, the con-

sensus is that oral and silent reading should be equally stressed in first-grade instruction. Also practical considerations suggest the desirability of a proper balance between silent and oral reading in first-grade reading instruction. It is now recognized that beginning with the first reading lessons, both oral and silent reading have a place in school activities. In beginning reading, word meanings aroused by printed symbols are derived from one's background of oral word meanings accumulated in prior language development. Oral reading, therefore, can become the basis for learning to think meanings into context reading. Complete non-oral reading instruction eliminates this meaningful link and thus represents a narrow approach. Although in beginning reading, oral expression based upon a child's experience constitutes the foundation for associating meanings with printed symbols, silent looking and thinking should be required in the same lesson. In fact there should be practice in silent reading from the beginning of instruction to promote comprehension without pronouncing the words employed.

Teachers can achieve good pupil progress in teaching pupils to learn to read by maintaining flexibility in this balancing of oral and silent procedures. Each procedure is given proper emphasis in the face of instructional needs as they arise. In general, neither oral nor silent reading, therefore, should be viewed as a sole method of reading instruction, for each is a technique for meeting special instructional needs. See Chapter VII for *teaching* of oral and silent reading.

Flexibility in Instructional procedures

Present thinking and good practice suggest that instruction in primary reading should employ diversified procedures rather than an adherence to any single "method." This implies flexibility in choice of the procedure that appears most appropriate for the task at hand. The viewpoint that reading is essentially a thinking process and that all reading should be purposeful should be kept in mind at all times. Although the pattern of initial instruction in reading will depend somewhat upon the policies of the school system and upon the individual teacher, it should be organized

to be in harmony with the basic principles of effective teaching and to provide for flexibility in procedures. This holds true whether one begins with experience charts, basal readers, or some combination of the two.

Introduction to Reading

Consideration has been given to preparation of the child for beginning reading experiences, to organization of classroom activities, and to some of the instructional tasks in the first grade. As the child progresses toward the stage where he is ready to begin to read, he not only develops a desire to learn to read but he also gradually comes to realize that printed symbols stand for meanings. When the proper stage of readiness has been achieved, teaching is organized for associating *specific printed symbols with specific meanings* that are already represented in the oral language patterns of the child. Thus the beginnings of a sight vocabulary are acquired through the recognition of certain word forms. Then there can be progress to the reading of short sentences and stories.

In associating printed symbols with meanings there must be accurate matching of the visual word form with the sound of the spoken word. The substitution of printed symbols for oral symbols represents a first step in learning to read. Several devices have been found effective in this initial exposure to reading.

The use of children's names and other labels provides practice in identifying symbols. As a marker to indicate a child's possessions it has been found advisable to employ only the first name at first. The name in script may be placed on a box containing seatwork materials, on cards or slips of paper to place near a hook in the cloakroom and on the child's desk, and other possessions. Guidance in matching a name with its sound and for silent identification is provided through blackboard work by the teacher. Names of committee members may be written on the board or posted on the bulletin board. Other labels and signs find similar uses. The cards containing the printed names of objects may be placed on tables, doors, chairs, and other articles in the classroom. Signs in other parts of the school and outside

the school serve a similar purpose. In all formal teaching situations, of course, there must be several oral repetitions of a name or word to assure recognition of the symbol. Picture labels find similar use. Pictures with single word labels like *house*, *car*, or *dog* may be homemade by cutting pictures from magazines and attaching the appropriate words, or prepared picture-word cards may be obtained from school supply houses. Scrapbooks of labeled pictures may be assembled. Many of these pictures find a use in activity units and as a basis for acquiring background of experience so necessary in concept and language development.

The use of action words provides another opportunity to match word form with meaning. These words, used singly, may be presented on the board or on cards. After aid in identification, some word denoting action, as *walk*, *sit*, *run*, or *hop* is presented and the child called upon carries out the action. Sometimes, the child to carry out the act is designated by presenting his printed name along with the word. Various word games like those presented by Dolch (40) may be used to advantage for the repetition needed to speed up word recognition.

As some progress is achieved in recognizing single words, simple *directions and announcements* may be written on the blackboard and posted on the bulletin board. Thus the listing of a committee with the responsibility of each member may be posted. This continues practice in identification of one's name and combines use of action words with the nouns which indicate duties. Thus: *John, pass the paper*, and so on. Similarly the teacher may give directions for classroom activities by writing them on the blackboard, or by pointing to a set of directions in a list already on the board, for instance, *Put your books away*. In the beginning of the use of a printed direction the teacher must of course read the direction aloud as she points to each word in it. Checking with individual children must be made to assure that there is accurate matching of sight and sound, or sight and meaning when action rather than verbal response is required. Use of the bulletin board also provides fine opportunities for posting announcements of everyday happenings, plans, and information items that are "newsworthy" in terms of the interests and experience of the

children. Samples: *John has a puppy; It is raining today; Jane brought her skip-rope to school.* These devices emphasize that meaning can be obtained from printed symbols and also provide material for much language work in addition to furnishing information which fosters desirable social interaction and coöperation among the children.

When exposure to printed symbols in the form of single words and later to words in simple sentences as they appear in directions and announcements continues, the children gradually acquire a recognition vocabulary of sight words that are to be used in later reading activities. The transition from these initial reading activities to the reading of experience charts or books occurs naturally and effectively. It should be emphasized that the transition is usually gradual.

Learning that printed symbols stand for meanings is promoted by many other activities and experiences. Children note that the teacher reads stories by looking at the print in books and that members of his family read the newspaper, magazines, and books. Even before entering school, most children have learned which of their picture books contain certain stories. Thus the relations between print, language, and experience are emphasized. From the beginning of reading experiences, it is essential that comprehension be emphasized. The mere memorizing of the sounds involved in pronouncing the printed word is not adequate. This would lead to word calling and become a handicap to effective progress in learning to read.

The consensus of expert opinion is that the miscellaneous materials described above, as well as experience charts, should be in either printing or script text rather than cursive handwriting. Script text is either typed text or manuscript writing. Its advantage lies in a close resemblance to book type.

Experience Charts

After some training with script text in the initial introduction to reading, reading programs vary with teachers and the requirements of the school program. In some cases, books in a basic

reading series are soon introduced and successive books in the series are depended upon to provide in an ordered sequence the basic material for reading instruction. In other situations, introduction to the basic series of readers occurs early but use of certain script-text material is continued along with the basic reader series. In still other situations the use of experience charts is emphasized. These charts, in the form of script text, are employed for beginning reading. Book reading is delayed until the children have acquired a sight vocabulary of about 50 to 150 words and they have some skill in word recognition techniques. The experience charts may or may not continue to be used throughout the year along with book reading. Since most teachers make some use of experience charts, their rôle needs examination.

These charts are made up of sentences related to some unit of pupil experience such as a trip to the zoo, care of pets, or a picnic. Sentences, dictated by the pupils, are printed on the blackboard by the teacher and then read by her. Under the teacher's guidance each sentence is revised by the children for simplicity of expression and clarity of language, and so arranged that a coherent story is told. "Reading" of the completed story by the children may be done from the board or may wait until the material has been transferred to a chart or duplicated in script text. Uses and limitations of experience charts are discussed in detail by Betts (7), Dolch (40), and McKee (126).

Initial use of experience charts

In the early days of grade one, experience charts may be an integral part of the reading readiness program. At this level they provide opportunities for group coöperation and language development as well as other training basic to the reading that is to come later. In the class or group situation, and under guidance of the teacher, each pupil learns to participate and at the same time to recognize the contribution of others. Desirable pupil attitudes toward each other and toward the teacher are developed. Opportunities are provided for improvement in thinking and oral language expression. And when the teacher reads the unit on the board and points along the lines of print while the children attend,

the realization grows that printed symbols carry meaning. Interest in what the print says is intensified and the desire to learn to read increases. The attention thus fostered gradually leads to perceptual differentiation. The child begins to note that the successive lines are somewhat different and then that the word forms in a single line are not alike. Eventually, with proper teacher guidance, the child begins to identify certain word forms. The child is beginning to read. Experience charts, therefore, not only develop group participation and language facility, but also give desirable training in visual discrimination.

Basic requirements in constructing experience charts

To be maximally effective, these charts should fulfill certain requirements. The sentences employed should be short, clear, simple, and in words and language forms employed by the children in their oral communication. About five to seven sentences are sufficient for one chart. The sentences should be so coordinated or related to each other in proper sequence that they constitute a story or exposition, such as caring for a plant. In the same and in successive charts it is desirable to repeat as frequently as possible the more important or most used words.

Words repeated in the same chart provide an incentive to note likenesses and differences in word forms. Rereading of a chart should continue only as long as interest motivates the attention necessary in matching sight with sound. If this matching is not done, learning does not take place. The charts should be satisfactorily constructed with proper alignment of words in a sentence, correct spacing of words, and legibility of the print. In some instances it is desirable to provide space for drawing illustrations or pasting in pictures.

Some of the more frequently mentioned limitations of experience charts as reading material for beginning reading may be listed: (1) As noted earlier, it is difficult or even impossible to employ the word repetition necessary for developing an adequate sight vocabulary. (2) Too frequently the experience units are themselves uninteresting to the pupils, or the interest present in organizing a unit is killed by excessive rereading of the chart.

(3) In reading experience charts the child tends to rely upon memory rather than upon recognition of word forms. (4) Finally, the excessive mechanical work required of the teacher in constructing experience charts is a handicap.

Experience charts and the sight vocabulary

One of the aims frequently cited in using experience charts is to develop a sight vocabulary to facilitate book reading. According to both Dolch (40) and McKee (126), however, experience charts should not be depended upon for the teaching of initial sight vocabulary, particularly if sole dependence is upon use of such charts. The fact that a child repeats accurately the sentences in an experience chart should not be misinterpreted by the teacher. During the early stages of this kind of training, the chart "reading" is largely repeating the story from memory. Even with subsequent experience charts, as the child progresses through the first grade, only some of the words are recognized. The rest are filled in from memory.

True reading charts inevitably introduce new words too rapidly for adequate repetition of even the important words. For instance, the average pre-primer introduces not more than two new words on any one page, with an average of slightly less than one new word per page and provision is made for about 25 repetitions by the end of the book. Nevertheless, most authorities admit the usefulness of experience units for other purposes such as the above-mentioned use for certain aspects of reading readiness. It seems obvious that experience charts should not be employed exclusively either in beginning reading or in building a sight vocabulary. Although successful use of experience charts in preparation for systematic book reading has occurred, this appears to have been achieved by exceptional or master teachers. In the hands of the average teacher, total reliance upon use of experience units tends to produce ineffectual reading instruction or even contribute to negativisms and reading disabilities.

A suggested rôle for experience units and charts

There is no mistaking, however, that experience units can be very useful. In general, the working out of an experience unit

provides training in group coöperation and tends to be an enjoyable social experience. Secondly, as already mentioned, experience units can foster certain aspects of reading readiness such as learning that printed symbols stand for meanings, and can provide additional opportunity for perceptual development in visual discrimination and in matching sight with sound. Perhaps the most important rôle of experience units, however, is the opportunity they provide for language development prior to reading, during initial reading instruction and continuing after systematic reading is under way. In fact, experience units appear to be an essential supplement to any developmental reading program. Learning to think and speak more clearly promotes reading readiness at any stage of maturity. Furthermore, experience units may be employed to clarify concepts involved in particular reading units. Finally, experience units through the elementary grades may have a unique function in language development, not specifically aimed at preparation for reading. Well-rounded child development is aided by group discussion under teacher guidance of activities and experiences. The results of these are organized in charts at the early levels. Later the children assume more responsibility for the recording. Reliving these experiences, either when read by the teacher or by the children is an enjoyable activity. This latter use of experience units, which not only has desirable language values but also provides reading activities distinct from book reading, is becoming more common. It is suggested here that experience units may well find their most effective rôle, not primarily in developing a vocabulary for initial book reading, but as part of a coöordinated and well-balanced language development program.

Other Approaches to Beginning Instruction

Use of a basic reading series is fairly common in beginning reading instruction. The progress is from the reading readiness book to pre-primers and primers. Children are grouped in terms of readiness for reading, the best prepared group starting reading first. Little or no emphasis is placed upon experience units. Fre-

quently there is a rather sharp break between the readiness book and the first pre-primer. Considerable dependence is placed upon pictures for context. Pre-primer materials are approached by such means as reading a story after the teacher, and discussing the story and pictures. Picture word-cards or large picture books are also useful. Visual discrimination necessary for recognition of word forms is encouraged. In any case, a story is dealt with as a unit. Less and less preliminary preparation is used until the children meet the new words in the verbal context of the new story. Strict adherence to basic series is considered by Betts (7) to be less effective than a combination of experience units with book reading.

Teachers in general adhere neither to a strictly basic series nor to an all-out experience approach. Some variation or combination between them tends to be used. The program is organized to move forward into the most elementary readers as rapidly as possible. Script text of various kinds, including experience units, are employed in blackboard and chart work for developing visual discrimination and word perception. Easy books are soon introduced and used along with script-text material.

Irrespective of the approach, the well trained teacher will be one who employs proper grouping and is versatile in attending to individual needs. However, as indicated throughout the discussion, the observation of practices and the study of the professional literature on reading suggest that some approaches are more promising than others.

Topical Units and Basic Instruction

Topical units of instruction are commonly employed at all grade levels in many elementary schools. In fact, Bond and Wagner (16) advocate that a rather constant use be made of topical units in class enterprises. To a large extent, the materials in readers of basic series are organized around topical units. Examples of such units are the farm, pets, the circus, Indians, and the seashore. A class unit may come directly from material in a basic reader or it may be an outgrowth of other class activities.

Topical units are particularly appropriate in situations where group methods of instruction are employed and where emphasis is placed upon adjusting instruction to individual differences.

The organization and use of topical units are discussed widely in many educational publications. Bond and Wagner (16) and Bond and Handlan (15) stress the part played by topical units in reading programs. Pratt (135) and Storm (161) discuss the rôle of topical units in adjusting reading programs to individuals. And Hildreth (96) describes the use of experience units in the first grade. Outlines of sample units with extensive bibliographies are given in Bulletins by the *University of Minnesota Elementary Demonstration School Faculty*, Numbers Three (182) and Six (183).

The typical teaching unit should provide ample opportunities for purposeful reading. The degree to which the unit is worthwhile depends largely upon the availability of relevant reading materials. As noted by Bond and Wagner (16), experience units are suitable for topical study by pupils in a specific grade only when there are appropriate materials for these children to read. In other words, in addition to being relevant and appropriate in level of difficulty, the materials must be interesting and provide experiences needed by the children.

Topical units may be introduced early in the reading program, even in the first grade. At no grade level should a child be asked to read material that he is not prepared to handle effectively. Obviously, a child cannot learn about a topic through reading if he cannot read the material with understanding.

Effectively organized teaching units promote growth in reading proficiency and are recommended for use throughout the elementary grades. Under no circumstances, however, should topical units take the place of basic instruction in reading. Unit organization in relation to reading instruction receives further consideration in Chapter XI.

Summary

Effective reading instruction is based upon principles which have been established through controlled experiments and classroom experiences. In first-grade instruction these include consideration of attitudes, interests and motivation, pupil needs, purpose in reading, and choice of materials. Instructional procedures should be diversified and flexible. Organization of the instructional procedures, therefore, should provide for a balanced program with proper emphasis upon training in auditory and visual analysis, phonetic analysis, and a combination of oral and silent reading. In his introduction to reading, the child is taught that printed and written symbols stand for meanings in a variety of situations.

The use of experience charts becomes an integral part of reading instruction in grade one. Used alone the charts are inadequate for developing the necessary sight vocabulary. However, experience charts do provide opportunity for essential training in group coöperation, visual discrimination, and the matching of sight with sound. Perhaps the most important rôle of experience charts, however, consists of the opportunity provided for training in language development prior to reading, during initial reading instruction, and after systematic reading is under way.

Methods of instruction in beginning reading vary. Some teachers depend mainly upon experience charts. Others adhere for the most part to the use of a basic series of readers. Ordinarily, however, a compromise is reached between the experience approach and use of basic reader series. In any case, versatility on the part of the teacher in adjusting instruction to pupil abilities and needs is essential. Although topical units may be used, they should not replace basic instruction.

Selected references on teaching reading in the first grade are listed at the end of Chapter VII.

CHAPTER VII

Reading in Grade One (Continued)

The previous chapter has been concerned with basic principles underlying instruction in first-grade reading, an evaluation of teaching methods employed, introducing the child to reading and the use of experience charts. The present chapter will deal with organization of the program in preparation for transition to book reading, progress in book reading, development of independence in choice and use of books, and evaluation of progress in first-grade reading.

Preparation for Book Reading

Introducing the child to reading carries instruction through what is usually designated as the pre-primer period. It is during this period that the child acquires the initial sight vocabulary of about 75 words necessary for successful reading of primers. As noted in the previous chapter, several approaches have been employed in building this initial sight vocabulary. The writer recommends that during this period the child be introduced to reading through a balanced program which makes use of a well coördinated combination of homemade materials such as script text, labels, notices and bulletins, experience units with charts, and pre-primers. This coördination can be achieved best by avoiding any overemphasis upon a single approach, by recognizing limitations and by capitalizing on the advantages offered by each kind of material. This implies a steady developmental progress from learning that printed symbols carry meaning, through recognition

of word forms to where a simple book story can be read with accuracy, understanding, and pleasure.

Transition to book reading

The labels and action words are introduced early. There can be a natural progression to short signs, notices, and bulletins with *controlled vocabulary*. At an appropriate time, which is fairly early, the first pre-primer is introduced. The proper workbooks together with teacher-made exercises printed in script text that are needed for supplementary practice in word recognition, are to be used simultaneously with the other materials. As they progress in accumulating a sight vocabulary, some children will be able to read an increasing proportion of the chart material derived from experience units, particularly if the teacher is successful in appropriately controlling the vocabulary in these charts. As a matter of fact, the more lengthy posted notices, announcements, and bulletins are not greatly different from the well constructed experience charts. Nevertheless, systematic teaching of word form recognition and consecutive reading is ordinarily better accomplished with the pre-primer material, plus homemade supplementary exercises where vocabulary control is adequate, than with experience charts alone. Furthermore, the stories and language in the better pre-primers are usually as intimately related to childhood experience as those in experience charts.

If carefully organized, this introduction to the reading program will result in a natural and steady accumulation of a sight vocabulary accompanied by progress in reading sentences and stories. The variation in individual rates of progress must be provided for by flexible grouping of the children with attention to individual needs.

The choice of the first pre-primer for use in this transition period determines to a large degree the facility and gratification with which children learn to read. The criteria for this selection are the same as those appropriate for choice of a basic series of readers (discussed below). Ordinarily successive pre-primers in the same basic series provide more adequate vocabulary control than shifting back and forth between series. When one series is

finished a shift may be made to another. There is apt to be only moderate vocabulary overlap from one pre-primer series to another.

Children should have thorough orientation and preparation before beginning reading in the first pre-primer. In this they learn about the general nature of the book and something about the main characters and their relations with each other. Furthermore, the children need to be specifically prepared for effective reading of each selection and for doing the appropriate exercises in the accompanying workbooks. Teachers' manuals which accompany series of pre-primers give detailed instructions for introducing the books to children and for teaching each of the successive selections. Despite the fact that the teacher's task is facilitated by the directions and suggestions in the manual, no manual should be followed slavishly.

There will be considerable variation in rate of acquiring a sight vocabulary and progress through the pre-primer period. Hence children become ready for progressing into primer and first readers at different times. Flexibility in grouping, which is implicit in individualized teaching, will provide for each child a continuous developmental progression from pre-primers to primers to first readers.

Coördinating the program in beginning reading

At this point further note may be taken of the importance of coördination in the reading program. Although separate consideration has been given to various phases of the instructional task, these are not kept separated in the teaching of reading. To a large degree, they are operating together in the coördinated program. Principles of effective teaching are, of course, basic. Taking care of individual needs means flexible grouping: some pupils in the readiness group, some in introduction to reading activities and still others in more advanced book reading, with shifting from group to group as indicated by growth in proficiency. Oral and silent reading are appropriately balanced from the beginning. Emphasis upon purposeful reading for understanding, acquisition of word recognition techniques and building a sight

vocabulary go on hand in hand. All these aspects are coördinated to produce a well-balanced program in which the child progresses naturally and effectively in a developmental sequence, the rate of which is determined by his learning capacity, adjustment to the school and class situations, background of experience, and the like. It seems clear that teaching first-graders to read is a complex and arduous job.

Special chapters will be devoted to the details involved in word recognition techniques, vocabulary growth, comprehension development, individualization of teaching, and remedial instruction. We turn now to book reading.

Progress in Book Reading

Irrespective of procedures emphasized during the introduction to reading and development of the initial sight vocabulary, the child eventually progresses to book reading in primers and then first readers. Earlier instruction with miscellaneous script-text materials, blackboard work, and experience units has prepared the child for pre-primer work and has accompanied such reading. Work with the pre-primer has involved practice in handling a book, finding the place, turning pages, progressing from one page to the next, use of picture context and sharing experiences in preparation for a unit of study. Systematic training in book reading becomes a reality with progress to the primer level. This step is keenly anticipated by the pupils who, in addition to reading from their own books, are keenly interested in the longer stories with plots.

The vehicle for systematic training in reading habits is usually a basic reader series. The more adequate of these series, with their control of vocabulary and language sequences, provide opportunity for developing essential reading skills such as following the sequence of events in a story, recognizing words in context, and comprehension of meanings. The teacher will, of course, continue to use script-text and blackboard materials as well as experience units to introduce the child to stories in the books, to clarify relevant concepts, and for drill exercises. As soon as a

child demonstrates that he can read effectively at one level he is advanced to the next level of the series. Thus a steady developmental progress is achieved.

Choice of a basic series

Several factors should be considered in choosing a basic series of readers. The pictures should be in colors, properly placed near the top of the page, and plentiful. They also should be relevant to the story so that they may provide proper context clues as aids to word recognition. The stories should involve experiences common to the background of the children, and be well written and interesting in plot. The typographical layout in the books should be attractive and the printing highly legible. Control of vocabulary and language structure should be appropriate for promoting a gradual and continuous progress in acquisition of the sight vocabulary and other reading skills. A satisfactory basic series will provide a good instructor's manual and a plentiful supply of supplementary materials such as workbooks and check exercises as aids to teaching and learning.

Use of a basic reader series

Hildreth (96) notes that practice varies widely in the use of basic series of readers. At one extreme basic readers provide the foundation of all reading instruction from the beginning. In other situations there is greater flexibility of usage, such as introducing the series some weeks after the beginning of reading instruction, using a combination of readers from different series at each level of instruction, supplementing the basic series with other books of an easier level, or using special story books and readers of various kinds as supplements to the basic series. Nevertheless, the most common procedure has been to use one book after another in the same basic series. In terms of vocabulary control and sequential arrangement of units, it is probably desirable that children progress through the pre-primers and primers of one series before attempting to read books in a different basic series. The special advantage of progressing from one book to the next in a good basic series of readers is the

control in sequential development that can be achieved. The basic series permits assimilation of vocabulary terms and the acquisition of other skills to become a gradual and continuous step-by-step progress.

Nevertheless, there are also sound arguments for using readers from more than one basic series. It is desirable for a child to achieve proper proficiency in reading at one level before he advances to the next. For example, the use of first readers can be deferred until the child shows a high degree of skill in reading primer materials. To achieve this there must be more practice in fluent, easy reading beyond that achieved in a single basic series. Furthermore, to maintain pupils' interest in reading, new materials of appropriate difficulty are needed for this practice. These materials can be obtained by selecting from other basic series additional books with a large degree of overlapping in vocabulary. Reading these, in addition to providing review of old words, will achieve some broadening of the reading vocabulary without unduly increasing reading difficulty.

There are other important uses in the first grade for basic series of readers. Since books in any modern series tend to be accurately graded in difficulty, the diversified materials may be used to good advantage in adjusting instruction to individual needs. In the individualized program, however, from the first the most mature group should have access at odd times to a variety of books of appropriate difficulty level. Also certain material in basic readers may sometimes be used to advantage in experience units, either for extension of information or as a foundation upon which to develop the unit, that is, the circus, farm life, pets, home life, and so on.

Developing independence in choice and use of books

Some children love to read extensively, others do not. Nevertheless, there should be for all children incentives to develop independence in the choice and use of books. Incentives may take various forms. An essential part of every primary classroom is the reading or library corner with its tables for reading. Here there should be assembled an abundance of books of varying

and appropriate levels of difficulty. Time should be provided for perusing these materials as a leisure activity. The books are changed from time to time. At first they are picture books, pre-primers and primers. As the children progress, these are replaced by other books from the school library and other sources. Frequently pupil-made booklets are of real interest to other children.

Interest in specific books is generated by the teacher's enticing comments and by her reading aloud of exciting parts. Complete reading by the teacher of poems, rhymes, stories, and material on a wide variety of subject matter (science, nature study, travel) provides an incentive for examining books, and eventually for choosing and reading books. Guidance as well as opportunity, therefore, are helpful in developing independence in the choice and use of books.

As the child gains a fair degree of skill in reading, some departure in regular classwork from the basic series of readers broadens experience, develops interest in reading, and provides incentives for an extension of reading activities. All this tends toward greater independence in the use of reading material. With increase in reading proficiency this tendency should accelerate.

Supplementary reading materials

It has already been suggested that the work with basic texts may be, and usually is, supplemented by blackboard work, chart reading, the use of homemade script text of various kinds for practice exercises and review work. *Bulletins* continue to be a useful device. The task of maintaining the bulletin board can be more and more turned over to pupils as they gain in reading and writing skill. On it may be displayed a variety of interesting material such as accounts of activities, directions for activities, assignments and information on other aspects of school life.

Multigraph Materials Serve Many Purposes. Practice exercises of various kinds, homemade stories, and the like may be multigraphed so each child may have his own copy. Similarly, copies of charts, bulletins, and notices may be assembled in the child's notebook. Detailed suggestions for construction and use of charts,

bulletins and various kinds of related exercises are given by Betts (7), by Hildreth (96), and in the *Iowa Elementary Teachers Handbook* (103).

Workbooks Find Important Uses. The workbooks provided with basic reader series furnish practice, review, and check tests for reading lessons of the text. Other workbooks are available for training in word perception, comprehension in silent reading and other specific aspects of reading. Drawing and coloring exercises are usually included. Properly used, workbooks may become an important aid in the development and checking of word discrimination, comprehension of words, sentences, and paragraphs, use of context clues in word recognition, following sequence of ideas, and so on. There are certain hazards to be avoided in using workbooks. Children may misunderstand directions, use inadequate techniques of interpretation, or adopt faulty procedures. Misuse of workbooks can easily degenerate into mere busy work. Close supervision is required, therefore, to assure proper procedures and adequate training with these materials. In a balanced program, workbook activities provide a useful supplement to work with basic readers.

Instruction Is Facilitated by Use of Teacher's Guidebooks. Teacher manuals are provided with the better basic series of readers. These are very useful and should be employed consistently by the teacher for suggestions on introducing units, organizing the reading lesson, introducing new words and concepts, and so on. This does not mean that the teacher may not deviate from the manual. Any teacher, however, will find much that is useful in a well constructed manual and will also find that it is a labor-saving device.

Learning the Names of Letters Occurs Incidentally. The use of certain materials provides incidental training in learning the names of the different letters and learning that the names are not the same as the sounds. This occurs at about the time work begins on word structure and word analysis. But specific drill in letter-naming divorced from word context should be avoided. The order of the letters in the alphabet will be acquired gradually as the pupils work with a picture dictionary and word lists. In this

way the learning of letter names and the alphabetic order is spread through the first-grade period.

Teaching Oral and Silent Reading

As already noted in Chapter VI, any well coördinated reading program will provide a place for both oral and silent reading beginning in the first grade, and will continue throughout the higher levels. An overemphasis upon either oral or silent reading, however, is not conducive to best progress in reading proficiency. Hildreth (96) stresses this mutual association between oral and silent reading.

To form effective silent reading habits, practice in silent reading should begin with the earliest lessons. When a certain script text is presented either on the blackboard, on flash cards or in other form, the children are asked to examine it and think what it means. Comprehension of the words, phrases, or sentences can be indicated by explaining the meaning, by a "yes" or "no" answer to a question or by performing some activity. If desired, the response can be made by showing a "yes" or "no" card. Delaying the response until the child has looked at the material and thought what it means is effective. In this way, attention is directed toward meanings of symbols without oral pronunciation. At times a whole lesson may be devoted to silent reading. In addition to script-text materials, a variety of material for silent reading practice is found in workbooks. These silent reading procedures are, of course, transferred to work with the basic readers.

In the first grade, children read orally to the teacher, to each other, and to the class. Effective oral reading, like any skill, must be learned. Even in beginning reading, the oral reading of a word or sentence should be preceded by visual examination and thinking of its meaning, that is, silent reading comes before oral reading. This maintains the emphasis upon meaning and at the same time tends to prevent development of mechanical word-by-word pronunciation. Furthermore, the habit of glancing ahead and anticipating meanings is fostered. This habit is particularly important later when sight oral reading is occasionally

undertaken. At the early stages of beginning reading, oral reading to the group should occur only when the pupil has practically memorized the material. Later in this grade, reading to an audience is done only after careful preparation to clear up pronunciation and meaning difficulties, and to improve phrasing and enunciation. This involves silent reading, teacher aid on difficult words, and guidance in general before proceeding to read to the class. In other words, the teacher should make sure that a pupil is well enough practiced to give a successful performance before he attempts to read to the group. No pupil should be put in the embarrassing and frustrating position of reading orally to a group without adequate preparation. Listening to oral reading must be made and kept a pleasurable experience. This is possible only when the reader is well prepared.

The practice of silent before oral reading involves certain hazards that should be appreciated. Asking the pupils to read a sentence or paragraph silently prior to an oral reading supposedly provides an opportunity for visual examination of the words involved, for working out unknown words, for getting meanings, and for grasping the thought of the sentence or paragraph as a whole. This works well when the conditions are such that the child can actually understand what the sentence says. Some children need teacher help and guidance in this. Words which are apt to cause difficulty may be put on the board and pronounced, or the pupil may point to the word he does not know and the teacher whispers it to him. Stated differently, in insuring that silent reading comes before oral it is presupposed that the material can be read, otherwise help must be provided to enable this to be done. It is not sufficient to provide time and assume that the child is reading comprehendingly. He may be sitting idly and thereby acquiring harmful habits.

Appraisal of Progress in First-Grade Reading

Good teaching necessarily involves continuous appraisal of progress in learning to read. This begins with the appraisal of reading readiness and continues throughout the grades. The devel-

opmental record of a child's progress provides information on individual needs and provides a basis for grouping and for guidance in instruction. The child's record is consulted in conferences with parents and is passed on to the next teacher when the child is promoted. It is best to have a separate folder for each child.

Data which constitute materials for appraisal are derived from various sources such as scores on standardized reading tests, teacher-made tests, test materials which accompany basic readers and workbooks, as well as from teacher observations of adjustment behavior and of day by day reading performance. Details for appraising growth in learning to read are given in Chapters XVII and XVIII.

Satisfactory adjustment of instruction to individual differences in first-grade reading is dependent upon a continuing appraisal of progress in learning to read. In fact, effective instruction requires that reading difficulties be discovered and remedied as they occur, whether this is in the first grade or later.

Various types of difficulties may appear in first-grade reading. The child may need additional training in the left-to-right perceptual sequences both in reading words and lines of print. A child may have special difficulty in mastering and applying word recognition techniques for use in unlocking unfamiliar words. He may need special training in identifying word forms, use of verbal context, phonetics, or in all of these. Or guidance may be needed in the coördination of these techniques. Difficulties in visual or auditory discrimination may suggest the need of a physical examination, additional training or both. Progress in accumulating a sight vocabulary may be abnormally slow. Gaps in experience background may appear. Some children may have difficulties in vocabulary and sentence comprehension. The purpose in back of the demand for some kinds of reading may not be clearly understood. A few children, due to emotional difficulties, may find it hard to adjust to the learning situations in the classroom. All these are samples of difficulties that may handicap one pupil or another. The difficulties may be clearly identified and evaluated through systematic appraisal. More detailed consideration will be given to these matters in Chapter XII.

Achievement to Expect in Grade One

Marked individual differences are to be expected in the reading progress made by first-grade pupils. By the end of the grade, and with normal opportunities plus satisfactory teaching, some children will read well beyond beginning second-grade level; others will have made only slight gains. Hildreth (96) has ably outlined the progress to be expected by the more capable (average) learners by the end of the first year. With easy materials the children will reveal satisfactory word recognition and understanding in reading sentences and paragraphs from books, charts, and other sources. What has been read will be remembered well enough to be discussed. The pupils will read orally with understanding and expression. They will reveal some independence in word identification and recognition and in story reading. Also they will have accumulated a considerable sight vocabulary. The children will also have developed desirable attitudes toward reading, skill in use of books as well as some interest and enjoyment in free reading of library and other books outside the basic materials. Ability to concentrate for short periods on workbooks and other practice exercises will have been acquired. Finally, homemade tests, check tests which accompany readers and standardized tests designed for the first-grade level will be responded to successfully.

Basic Nature of Reading in Grade One

The introduction to and progress in reading during the first grade provides the foundation for later reading. To a large degree, satisfactory progress at the higher levels depends upon the acquisition of an adequate foundation in the first grade. In addition to being extremely important, the teacher's task in this grade is both complex and difficult. Factors which contribute to successful accomplishment of this task by the teacher include proper training, considerable learning from experience on the job, versatility in adapting procedures to demands of the school system, and pupil needs, an understanding of factors in child growth as

well as personal characteristics like good emotional adjustment, patience, and sympathetic understanding. This is a big order but the majority of teachers do have the qualifications to achieve success in their work.

In discussing reading instruction in the first grade, different aspects have been considered one by one. The order of treatment does not imply any order of importance. All are important and all need to be interwoven into a coördinated pattern of teaching to best further the teacher's purposes and to provide for the individual needs of her pupils.

Looking Forward

In the preceding three chapters on reading in the first grade there could be only relatively brief mention of techniques of word identification and recognition, growth in meaning vocabulary, comprehension development, adjusting to individual differences, and remedial teaching in the program with special reference to their rôle in this grade. In the plan of the following five chapters there will be found a detailed development of these aspects of reading instruction as applied to all levels of reading in the elementary grades. This will preclude the necessity of our repeating the same ideas again and again as the discussion proceeds from grade to grade. Our hope is to present a developmental program in each of these aspects of instruction so that the teacher may progress from level to level in a logical manner. She will of course coördinate each step in the development of word recognition into the total pattern of reading instruction.

Summary

First-grade children are prepared for book reading by a balanced program of instruction which uses a judicious combination of homemade script text, experience units, and pre-primers. When proficient in reading this material, the pupils progress steadily and naturally to reading the primers and then the first readers. The most common procedure has been to use one book after

another in the same basic series of readers for the core materials. The needs of the faster-learning pupils are met by furnishing them with a variety of additional books of appropriate difficulty level. Incentives of various kinds are employed to foster growth of independence in the choice and use of books as the pupils progress through grade one. Effectiveness of instruction is promoted by supplementing the basic text with script-text and workbook materials. There is a mutual association between oral and silent reading from the beginning of instruction. Effective teaching with proper adjustment to individual needs is possible only when there is continuous appraisal of progress in learning to read.

The instructional job in teaching reading in the first grade, as considered in this and the two preceding chapters, requires consideration of the following: (a) organization of the class for differentiation of instruction, (b) use of sound instructional procedures, (c) development of reading readiness, (d) introduction to reading, (e) progress in book reading, and (f) progress through the early stages in the development of the basic reading skills. By the time the average child has reached the end of grade one, he will have acquired a considerable stock of sight words, some independence in word recognition techniques and considerable skill in both oral and silent reading of easy materials. Those who have made satisfactory progress are now ready to forge ahead in reading during the remainder of the primary period.

Selected References

- BETTS, Emmett A., *Foundations of reading instruction*. New York: American Book Company, 1946, chap. 20.
- BOND, Guy L., and WAGNER, Eva B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chaps. 8, 11.
- DOLCH, Edward W., *Teaching primary reading*. Champaign, Ill.: The Garrard Press, 1941, chaps. 5-10.
- HILDRETH, Gertrude, Reading programs in the early primary period, *Reading in the elementary school*. Forty-Eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, chap. 4.
- , *Readiness for school beginners*. Yonkers, N. Y.: World Book Company, 1950, chap. 15.

- Reading. *Iowa elementary teachers handbook*, Volume II. Des Moines: Department of Public Instruction, 1943, pp. 45-62; 97-129.
- McKee, Paul, *The teaching of reading in the elementary school*. Boston: Houghton Mifflin Company, 1948, chaps. 8, 9.
- Stoet, Clarence R., *Progress in primary reading*. St. Louis: Webster Publishing Co., 1950, chap. 9.
- University Elementary Demonstration School Faculty. *Illustrative teaching units for the elementary grades*. Minneapolis: University of Minnesota Press, 1941.

CHAPTER VIII

Development of Word Recognition

Progress in learning to read requires the acquisition and use of word recognition skills.* It has been pointed out earlier that reading involves the recognition of printed symbols which serve as stimuli for the recall of meanings. This recall of meanings is, of course, essential in order to understand what an author says in a sentence or a paragraph. In fact, recall of meanings is implicit in the view that reading is essentially a thinking process. Interpretation of the printed symbols requires, therefore, skill in word recognition.

To recognize a word means to identify it as a word previously known. That is, the visual form leads to thinking of and recalling the correct sound of the word so that there is an association of the sound and meaning with the visual form. Immediate recognition occurs only with well-known or sight words. This is comparable to identification of certain objects that are thoroughly familiar, such as one's pet dog or favorite arm chair. Other words which one has encountered but which are less familiar are recognized less promptly but usually with only slight delay. In such a case, a little closer visual inspection with recourse to one or more of the word recognition clues usually will result in ready recognition. This is, for instance, like seeing a neighbor's dog some distance from home. One might recognize the dog after noting his color, size, and markings, and then clinch the recognition from the fact that the dog's owner was also seen a moment later

* In writing this chapter the author gratefully acknowledges the help he has received from Professor W. S. Gray's *"On Their Own in Reading."*

near the dog. To identify and recognize a word which is in one's comprehension vocabulary and oral usage, but which has not been encountered in print before, requires application of recognition techniques which may involve one or more clues (see below). The child usually requires close visual inspection of the word in applying these recognition clues. As the identification is made, and when a word has many meanings, the appropriate meaning is given by the context. Then with repeated contacts with the word in different contexts, recognition of the word and its associated meaning becomes more prompt. So a familiar word form, plus meaning derived from context, yield quick recognition. Most of the reading done by the more mature reader involves this kind of prompt word perception. First contact with a new word form involves, therefore, identification of the printed symbol in terms of its sound and meaning. Subsequent contacts develop recognition. Ultimately the goal is to achieve a level of almost instantaneous recognition. In this text, development of word recognition implies identification as the first step in the process. Training in techniques of word identification and recognition are necessary.

Success in beginning reading depends upon the accumulation of an initial sight vocabulary. This basic stock of sight words, learned as word wholes is gradually increased. Dependence upon a sight vocabulary recognized in terms of word forms is not enough. Satisfactory progress in reading proficiency requires additional techniques for identifying and recognizing words. Mastery of these techniques for unlocking new words is necessary, therefore, if the child is to achieve independence in his reading.

A systematic program of training is required to gain the necessary skill in word identification and recognition. When these skills are adequate, the child not only gains in independence in reading, but also the whole reading process is speeded up. The mechanics of recognition then requires minimum effort, and major attention can be devoted to the main business of reading, that is, to the comprehension of meanings indicated by the symbols and the assimilation of the relationships involved in the language patterns. In other words, the thinking side of reading can be stressed.

precise visual discrimination not only of the total word form but frequently also of the details of the printed symbol. Certain children will require some additional training in auditory or visual discrimination, or both, as an essential supplement to training in use of word recognition clues and techniques.

The teacher will find marked individual differences in the ease with which children learn and apply clues to word recognition. Some children need relatively little training. These pupils rapidly acquire independence in word recognition. Others are relatively slow in their progress. They may have specific difficulty in mastering a technique such as the use of phonetics, or they may over-emphasize one clue to the neglect of others. Individualized help may be necessary for these children.

Training in word recognition is needed in all grades through the elementary school. Maximum skill in the use of any one clue or technique is not acquired at a single grade level. A sequential program through the grades with attention to individual needs is required, therefore, to achieve a satisfactory rate of progress in development of word recognition. This involves both repetition in practice of the particular techniques and flexibility in what is taught and how much is taught at each grade level.

Finally, there should be a balanced program in teaching word recognition. No single technique should be overemphasized or slighted. The child should know how to use each clue or technique and how to choose an appropriate clue or combination of clues and techniques to unlock a word in a particular situation.

Clues and Techniques in Word Recognition

There are a number of clues or techniques of analysis that may be employed in word recognition. They include picture clues, word-form clues, context clues, phonetic analysis, structural analysis and use of the dictionary. Although these are discussed separately, it should be understood that frequently two or more clues are employed jointly to identify and recognize a word. It should be emphasized that training in the use of word recognition techniques should take place in a genuine reading situation.

Picture clues

Actually, picture clues constitute a kind of context clue. An appropriate picture or set of pictures properly interpreted can furnish considerable meaning context for an episode or story. "Reading" or interpreting the pictures will furnish such meaningful items as the human and animal characters involved in the story, various objects in a street scene, a yard, a fence, a wagon, a bicycle, a doll, the interaction of the characters with respect to each other and to the environment, and so on. In short, the total pattern of action in a particular situation can yield an important meaningful context which may be employed to advantage as clues in word recognition.

Considerable guidance by the teacher in the "reading" of pictures and in the use of such interpretation as an aid in word identification and recognition is necessary. Some consideration of this has been given in Chapter IV. Additional emphasis may be added here, for few people realize the wealth of meaningful context that may come from "reading" pictures.

In general, the child interprets a picture in terms of the patterns of his own experiences. Nevertheless, with guidance the interpretation may become greatly enriched in terms of details noted and of related experiences. At first glance, the total pattern emerges. Guidance draws attention to numerous details and relationships that otherwise might have been missed. Thus attention may be directed to the details of clothing worn by a postman and how they differ from those of other men, or to the relative size of dolls and children. Again the meaning of a dark cloud in the sky when a storm is approaching or the function of a fence around a yard may be explained. Objects in pictures may be merely variations of those within the child's experience or through the things depicted he may learn about new things and new combinations. In general, the "new" things that may be seen in pictures come from attending to details that might be missed and from understanding relationships that might not be grasped without guidance.

Experience with pictures begins prior to school age. At this

time children begin to learn to read pictures. Though as an aid in word recognition, the reading of pictures is useful throughout the primary grades it is probably most helpful in grade one. In the intermediate and later grades, reading of pictures serves primarily to develop and clarify concepts. Pictures, therefore, provide aids to meaning as well as clues to word recognition. Obviously, the effectiveness of the whole program of visual education can be increased by training in the reading of pictures.

In the well constructed primary-school reader the pictures, if wisely used, may provide important clues to perception of many words. A picture should constitute an integral part of the story, depicting pertinent action. It should complement the verbal text, not substitute for it. In addition to being artistic and so interesting that it stimulates discussion, therefore, the picture should provide context clues to word recognition. According to Betts (7), systematic guidance in the use of picture clues may be provided by discussions in which pupils tell the story from a study of the illustrations, by preparing titles for pictures, by matching words with pictures, by finding sentences in the story which refer to items or relations depicted in an illustration, and by use of picture dictionaries. Examples will demonstrate to the child how pictures may sometimes help to identify and recognize a new word in printed context. In such examples, the familiar meaning of the word is shown in the picture. Then the pronunciation of the new word may be guessed by reference to clues in the picture. In such exercises, verbal context clues from the rest of the sentence and knowledge of the familiar initial consonant of the new word should be used along with the picture clues. Take the sentence, "Jack looked for his ball in the tall grass." Here a picture of the situation, the verbal context up to the last word and a knowledge of the initial consonant blend *gr* operate to bring recognition of *grass*.

Although a child should be taught to employ picture clues to help unlock words, these clues should not be so emphasized that he becomes too dependent upon them and memorizes the story from the picture. In other words, the child should be taught to

use picture clues along with other clues to recognize new words in context.

The trend is toward more frequent use of pictures and diagrams in children's texts. Comprehension in reading subject matter in the fields of science, social studies and certain other areas requires interpretation of pictures, diagrams, maps, tables, and analogous materials. Frequently the grasp of word meanings and the development of appropriate concepts as well as the acquisition of information depend to a large degree upon such interpretation. Analysis of the results of six investigations led Malter (122) to conclude that without training and guidance, children experience difficulty in reading and interpreting diagrams.

Verbal context clues

As already suggested, the principle in all this is that the meanings derived from reading familiar material which precedes or follows a new word provide *context meaning clues* which, if properly used, provide an aid to recognition of the word. With guidance, these clues begin to operate as soon as a child has accumulated enough sight words to read sentences in a little story pattern. Verbal context clues become increasingly useful as reading proficiency grows through the grades and on into adult life. At all grade levels, the clearer the meanings derived from verbal context, the more useful verbal context clues can become in aiding word identification and recognition.

Fairly early in the first grade, verbal context may be employed to confirm recognition of a word originally learned as a whole. In addition, verbal context may be employed to identify by "guessing" what word already in a child's speaking vocabulary would fit into the meaning of the sentence. Likewise verbal context is helpful in differentiating between two familiar words which look the same in total form, when only one of them will fit appropriately into the given context. During the early stages of reading, children tend to depend heavily upon context clues. As they advance in school, unless other clues are developed and appropriately used, guessing from context may become a handicap. In one kind of instance, verbal context may merely limit the

possibilities. As far as meaning context goes, any one of several quite different words might fit the meaning. Or again, several words which are already in the oral vocabulary have similar meanings and any one of them would do. In such cases, therefore, use of context alone is seldom adequate because it provides only one aid to recognition. As these other skills are acquired, context clues should be combined with such aids as word form, phonetics, and even use of the dictionary. Although dependence upon verbal context alone has many limitations, it is an invaluable aid. In fact it probably provides the most important single clue to word recognition. A word must fit into the meaningful pattern of the sentence or larger unit of context. So children should be taught to develop skill in its use.

As outlined by Gray (73), the development of ability to use context meaning clues involves three things: (1) Reading material must be properly adjusted in subject matter and in vocabulary to the experience of the pupils. (2) Children must be at the stage of development where they can attach suitable meanings to the new words as they are encountered. (3) The teacher should be able to provide training which will lead to more successful use of context clues.

Proper selection of reading materials must assure pupil interest in the meanings of what is read or the whole attempt will fail. Interest provides the motivation to search for clues to meaning.

Material that is satisfactory for developing skill in use of context clues must be made up out of words and language patterns that are already in the child's oral language usage. And the concepts involved should be those with which the child is thoroughly familiar. To reiterate, the material selected must involve words, sentence patterns, and modes of thinking present in the experience background of the child. Furthermore, the new words are so distributed that the known words provide sufficient meaning context for inferring the meaning and pronunciation of the new word.

A background of meaning must be provided for new words if context clues are to be used successfully. Actual experience such as a trip to a fire station will help, so that discussion of what is seen there may occur prior to reading a story about firemen. Or

vicarious experience can be furnished by means of discussion plus the use of whatever visual aids, models, or other materials are available.

In addition to making a careful selection of materials and providing a background of meaningful experience, there should be specific training throughout the grades in the use of verbal context as an aid to word recognition. Few children will make maximum use of these clues without such training. Procedures of training may vary. When reading aloud, the teacher may pause at appropriate places so that the children can give the next word by anticipating meanings which fit the context.

Another procedure is to guide the child in identifying a new word encountered in his reading. Since helpful contextual meanings may be encountered either before or after the unknown word, the child should be encouraged to read all the sentence and then return to the unknown word and try to supply a word which will fit into the context. The teacher may also ask questions or give suggestions in helping the child to find and make use of context clues so that he will more readily solve his own problems of unlocking new words encountered in reading by himself.

Several types of specific exercises may be employed to promote skill in the use of context clues. These exercises may be used in blackboard work, on slips of paper in the form of ditto material, or they may be found in workbooks. At first simple sentences are used in these exercises. Gradually they are made more complex.

The ability to anticipate meanings may be promoted by *completion sentences* as:

The cat can climb up a _____
The monkey has a long _____

In another similar form of exercise the child selects from a list the right word to complete the sentence. The whole sentence should be read before the selection is made:

At the _____ Mary saw some cows and pigs.
store farm house
Jane was so _____ that she went to sleep.
happy sad tired
The boy ran up the _____
street tree

Some exercises should emphasize the discrimination of *word forms* by requiring the child to choose the proper word from two with similar features. Completion exercises which furnish the initial or final one or two letters of the appropriate word may be used. This not only limits the choice when there are several possibilities, but also draws attention to visual clues that may be used as in "Jane was pl—— in the yard." or "The kitten was playing with the b——."

Specific guidance is usually needed to identify and properly use various clues furnished by the context both in the primary grades and later. Thus at times a new word is defined in context as: "Jack saw a *mallard*, a kind of wild duck, swimming in the lake." Again a word such as *lead* has different meanings and sometimes different pronunciations. Guidance is needed so that children may use such context clues to select the appropriate meaning and pronunciation. Furthermore, when the child looks up a word in the dictionary, he must frequently select the definition which fits the meaning of the context in which the word appears.

In the primary grades, meaning clues derived from both picture context and verbal context may be combined as aids in word identification and recognition. Such aids are most effective when used with phonetic analysis and structural analysis.

Word-form clues

The essential characteristics of word-form clues have been described in Chapter V. The initial sight vocabulary is usually acquired by learning to associate the total configuration of a printed symbol with its sound and meaning so that when the word is encountered again it is recognized in terms of word form. As the child progresses in reading proficiency, he should expand his skill in using word form as a clue to recognition. No child can become a proficient and rapid reader unless he learns to employ word-form clues readily. In fact, one of the most used clues to word recognition employed by mature readers involves the recognition of word forms. Word-form clues are most useful in facilitating quick recognition of *familiar* words. They are essential,

therefore, in extending the sight vocabulary as the child progresses through the grades and later.

As noted earlier, learning to use word-form clues requires close attention to the visual characteristics of words. An habitual tendency to observe the visual characteristics of words becomes an asset in attacking an unfamiliar word. With guidance, likenesses and differences will be noted, not only in total configuration but also in parts of words. Thus the child who has the word *came* in his sight vocabulary may encounter the new word *tame*. Habits of visual discrimination reveal that the two words end alike but that the new word begins with a *t* instead of a *c*. Context clues plus knowledge of the initial *t* sound can lead to identification of the word *tame*. Thus "When the children came home Jack saw a *tame* rabbit."

The above suggests that, to be most effective, word-form clues must be combined with other aids to word recognition such as context clues and phonetic analysis. It is especially important that clues from word form be checked by context clues. And in many instances detailed visual discrimination plus some use of phonetics must be added to achieve accurate recognition. First, however, attention is directed to word form plus context. To this is added phonetic and structural analysis as needed. Skill in choice of the clue or combination of clues to be used in recognizing a word is achieved through skillful teaching.

It seems doubtful to the present writer that specific training in the discrimination of likenesses and differences in geometric forms and pictures, as this is sometimes employed, will show any appreciable transfer to discrimination of words. Working directly with printed words is apt to be more rewarding. The main problem is to develop sensitivity to total configuration with some analysis of the factors which produce characteristic word forms such as the contributions of word length, patterns composed of the alternation of short letters (*a, n, c*, and so on) and long letters (*l, t, p*, and so on). This may come both from class discussion and teacher explanation.

Various kinds of exercises on the blackboard, in dittoed material, and in workbooks are employed to develop skill in the use

of word-form clues. Thus with a series of words (*doll, girl, doll, book, ball, doll*) placed in a vertical column, the child is asked to underline the words which are the same as the word at the top. Or the same series of words may be placed in two columns, but in a different arrangement in the second column. Like words are matched by connecting them with a line. In a similar way the child may be taught to match two words when one is capitalized or when one of the pair is the plural, that is, singular versus plural.

Betts (7) describes other exercises which require the pupil to identify the word spoken by the teacher by examining two similar printed word forms which may or may not sound somewhat alike (*there, three* or *send, sand*). Note that careful visual scrutiny plus accurate auditory discrimination are necessary. Identifying the right word or phrase in sentences, or selecting the right word to match a picture constitute other exercises. In all these exercises the words should be meaningful, that is, the child either knows or learns the pronunciation and meaning of the words used. For instance the child should know the word *doll* when required to match the word with a picture or when required to choose a sentence to go with a picture of a doll if given the following:

This is a ball.

This is a doll.

This is a bat.

The rôle of word-form clues becomes even more important as the child advances through the grades. In any reading, most of the words should be familiar and therefore should be quickly recognized in terms of word form with the aid of meaning context. Too often there is insufficient emphasis placed upon teaching the effective use of word-form clues.

Phonetic analysis

To gain the independence in unlocking new words which is essential in proficient reading, the child must achieve some skill in phonetic analysis. Basically, phonetic analysis consists of identifying a word by sounding out the letters and letter combinations

which make up the pronounceable units of the word. Proper use of *phonetics* will enable the child to work out the pronunciation of many new words as he encounters them. Since the spoken word is presumably in his understanding vocabulary, the printed word, when sounded out, is associated with the meaning carried by the pronunciation in the child's oral usage.

Although the emphasis placed upon teaching phonetics has varied from time to time in the past, it is now pretty generally accepted that some knowledge of phonetic skills is an essential part of a balanced reading program. We see that phonetic analysis is important and should be employed along with other techniques needed for effective word identification and recognition. There is not complete agreement, however, as to when the teaching of phonetics should begin and what phonetic elements should be taught.

As noted in Chapter V, the indications are that the teaching of phonetics should begin only when the child has phonetic readiness. This stage is apparently reached when the child has acquired the visual and auditory discrimination adequate for differentiating between letter forms and between letter sounds, when the child has acquired a considerable stock of sight words, when he has attained a mental age of approximately seven years, and when he is making some progress in formal reading situations. Formal training in phonetics, therefore, should be started only after the child has progressed well along in first-grade work. Nevertheless, some informal training, such as with initial consonant sounds, may profitably be given soon after the beginning of formal reading. Such training should always be intrinsic to the reading situation. Teaching phonetics by elaborate isolated word drills cannot be justified. Analysis of an isolated word should be followed by its use in the context of actual reading. In other terms, word analysis activities should not be permitted to become isolated activities. The degree of transfer from word analysis exercises to actual reading depends upon training in making the transfer. Additional phonetic elements are introduced gradually just when there is a need for them and at the rate that the individual child can handle them and profit by them. Like any other

aspect of reading, this requires individualization of the teaching. Various children will be ready for phonetic training at different times, and they will progress in learning the skill at different rates. Certain children will acquire phonetic skills only slowly and tend to use them ineffectually. In no case should phonetics be considered a sufficient means for effective word recognition. There are, of course, many words that cannot be identified by phonetic analysis.

The child you teach will want to know
The why of *sew*, and *sow* and *foe*.
Said and *maid* don't rhyme you'll say
Then how explain *say* and *weigh*.
And *flood* and *food*, how can it be
That sounds are not like what you see.

In general, however, phonetics is the most useful and the most consistently used technique for word identification when accompanied by context clues. Furthermore, phonetic analysis can be a valuable aid in structural analysis, especially in syllabification.

Use of Phonetic Analysis. Phonetic analysis provides the opportunity to associate the appropriate familiar word sound and its meaning with an unknown printed symbol—the new word form. In other words, the new printed word is in the spoken vocabulary and the familiar sound and meaning of the word is associated with the new visual symbol. Only when the sound and meaning are familiar can the reader check his analysis in terms of meaning context derived from the sentence. To properly associate sound with the printed symbol in word analysis, therefore, it is necessary that the child hear and speak the sounds accurately as well as discriminate visually the letters, syllables and words.

Frequently complete sounding of the word is not necessary. The phonetic clue obtained from the initial letter plus use of context usually suffices. Thus in a story about going for a ride we have the sentence "Jane put on her hat and coat" in which *coat* is the new word. The clue from the sound of *c* plus the context may immediately lead to identification of *coat*. In other situations, the phonetic analysis will need to be more complete, that is, either

part way through or all the way through the word. Best results are obtained when phonetic clues are combined with other clues such as word form, structural analysis, and context. Two or more clues may well operate together. There should be teacher guidance for learning the degrees of word analysis needed in different situations. Emphasis should be placed upon employing only the degree of analysis necessary as a supplement to other clues to identify the word. Otherwise children may develop the habit of complete phonetic analysis with every new word encountered. Such a procedure would not only slow up the reading process but would overemphasize mechanics at the sacrifice of comprehended meanings. Therefore, words should be broken into the fewest elements possible for quick recognition.

Syllabification may be introduced when the child is sufficiently mature to concentrate upon the division of words into pronounceable units. Usually this comes at some time later than the first grade.

Certain syllables are fairly stable units of sound, such as prefixes like *re-* or *un-* and ending syllables such as *-ing* or *-tion*. Many other syllables are identified by structural analysis (see below) followed by phonetic sounding. The syllables are then blended into the whole. This requires some knowledge of accent and how accent affects vowel sounds. The final check on the derived pronunciation is whether it sounds like a known word and whether this fits the meaning context of the sentence. The importance of syllabification is further discussed below.

Certain other aspects of phonetic analysis should be noted here, such as the use of phonetic families and phonograms. Phonetic families consist of consonant-vowel or vowel-consonant combinations which may occur at the beginning of words as in *bed, bet, beg*, or at the end as in *car, far, tar*. The almost universal tendency is to make use of only the ending families. Ending families should be taught only after initial consonants have been learned. Furthermore, if phonetic families are taught, they should be derived from sight words already in the child's vocabulary. Although much used in the past, the teaching of long lists of phonetic families is a practice of dubious value. More effective

procedures are those which teach the discrimination of likenesses and differences in words. These may be concerned with single-letter sounds or with consonant-vowel or vowel-consonant blends. Various types of exercises may be employed as: underlining like elements in lists of words; matching words that begin alike, or end alike; matching or underlining words that rhyme; substituting initial consonants, or final consonants, or vowels. Detailed exercises for applying these procedures are given by Betts (7).

In teaching phonetics, the teacher must decide how much emphasis to place upon phonograms. A phonogram is a letter or group of letters forming a speech sound and constituting a word element. Dolch (41) notes that various authors have compiled lists of "most common" or "most important" phonograms. These lists range from 24 to 203 phonograms. However, except for such common endings as *-er*, *-ed*, and *-ing*, these most common phonograms occur in relatively few words in the early grades. Furthermore, phonograms taught in the primary grades (except for the three common endings just cited) are employed to help recognize the endings of common monosyllables. These phonograms are of little help, therefore, in sounding out polysyllables for, except for inflectional endings, they are not the same as syllables in the longer words. Dolch (41) properly emphasizes that a more productive, but too frequently neglected, phonetic technique for unlocking polysyllable words is syllabification. This skill is acquired only through much practice. Guidance in syllabification, begun relatively early and continued through several grades, will provide an important aid in word analysis. This aid will remain useful as long as reading is done. Furthermore, it will tend to reduce some of the reading difficulties so frequently encountered in the upper grades and high school.

The teaching of phonetic analysis will of course vary with the teacher and the school system. This discussion does not suggest that any particular aspect of phonetic training be eliminated. Nevertheless certain limitations should be recognized: (1) Extensive training in phonetic families as such probably will not promote a high degree of skill in reading. (2) Teaching the "more common" or "most useful" phonograms is mainly applicable to

the common monosyllable words in the early grades, but of little use in unlocking *most polysyllables*. Skill in syllabification is much more useful with the longer words. (3) Single-letter phonetics (sounding of individual letters) is useful at any level of reading for analysis of strange words or unfamiliar parts (syllable or word root) of words. Nevertheless, larger structural units should be employed for analysis wherever possible. In general, letter phonics are used when other techniques fail.

There is much more to phonetic analysis than can be presented here. For details see Betts (7), Gray (73), and Dolch (41).

Structural analysis

The nature of and certain basic factors in structural analysis have been briefly considered in Chapter V. Structural analysis consists of identification of those parts of a word which form meaning units or pronunciation units. Actually phonetic analysis and structural analysis are two related aspects of word analysis and are frequently combined in word identification and recognition. In this combination, structural analysis precedes phonetic analysis in words of more than one syllable. Thus initial visual analysis reveals the pronounceable units and this is followed by whatever phonetic analysis is necessary to arrive at proper pronunciation of them. In fact, division into syllable units usually indicates how the sounding is to be done as with *la-dy* and *lad-der*.

The meaning units may be parts of a compound word as when two words make up *schoolhouse*; base words as *fall* in *falling*; suffixes as *-ing* in *falling*; and prefixes as *re-* in *return*. Various inflected forms of nouns, adjectives, and verbs are formed by adding *s*, *-ing*, *-er*, and *-ed* as in *dolls*, *runs*, *eating*, *colder*, *looked*. In these illustrations, the meaning unit is the root word in the inflected form of a word already known to the child as *run* in *runs*. The pronunciation units are the syllables which make up the words.

Structural analysis and phonetic analysis are not only inter-related but also must frequently be combined in unlocking a word. During the visual survey which naturally precedes the sounding out of a word, the child if properly trained looks for both meaning

units and pronunciation units. Having discovered the structural pattern by the visual survey, sounding out the word follows naturally providing the child has acquired systematic methods of structural analysis and sufficient skill in phonetics. Structural analysis can become an extremely useful tool in word recognition when combined with phonetics and employed along with context clues. In fact, there is no satisfactory substitute for these techniques for working out the identification of new words.

When an unknown root with an inflected ending, as *skating*, is encountered, visual analysis separates the known *-ing* from the root. After this structural analysis, phonetic analysis of the unknown root gives its sound. The procedure is similar with a compound word such as *playground* where *play* is familiar but *ground* is new. Recognition of *play* may suggest that *ground* is the second part of a compound word which is then sounded out by phonetic analysis, and then the two parts blended.

When a new root word of two syllables which is already in the speaking and understanding vocabulary is encountered, the word is divided into syllables by structural analysis and then phonetic analysis will complete the identification. Meaning context serves as a check on the appropriateness of the word. It is clear, therefore, that structural analysis is essential for identification when dealing either with inflected, derived, or compound forms of known words, and with unknown root words of more than one syllable.

At this point a caution may be sounded concerning the practice of teaching children to find little words in big words as an aid in word identification. Little words in big words tend to be neither complete syllables nor meaning units. Furthermore, the so-called little word may not have the same sound in two different words. Thus the word *at* in *hat* and in *father*. Teaching the child to find little words in big ones is a dubious practice which may eventually become more of a handicap than an aid. It is better to ban the practice altogether, or to confine it to identifying root words and parts of compound words. Definitely, structural analysis is a more reliable technique. In this the child is taught to look for meaning units, and when syllabification is learned, he also looks for pronunciation units.

Techniques of Structural Analysis. Certain skills and understandings must be acquired for the application of structural analysis. These include the following: (1) The adding of *s* or *-es* to nouns to form the plural. (2) The adding of *s*, *-es*, *-ed*, or *-ing* to roots in inflected forms of verbs. (3) The identification of such endings as *'s*, *-en*, *-er*, and *-est* which change the form of the word. (4) The analysis of derived forms involving prefixes and suffixes as *un-*, *re-*, *-less*, *-ly*, and so on. In all these, the root word is the meaning element. When dealing with compound words, both parts are meaning elements which by themselves are word wholes.

In words of more than one syllable and where there are no prefixes, suffixes, or inflectional endings, analysis must proceed by syllabification. The child must learn to identify syllables, the parts of a word pronounced in one breath, that is, the parts we hear as pronunciation units. Success in the application of phonetic analysis to polysyllabic words depends upon dividing the words into syllables. In the past, too little emphasis has been placed upon developing skill in syllabification as an aid to word recognition. For details of structural analysis including principles of syllabification see Gray (73).

Use of the dictionary

The word recognition techniques discussed above have been concerned with identification of a printed symbol which stands for a word already in the speaking and understanding vocabulary of the child. When a word is encountered which is not in the speaking-understanding vocabulary, it is necessary to employ the dictionary to associate sound and meaning with the printed word. One use of the dictionary is to check the accuracy of a tentative pronunciation and meaning worked out by the reader by application of the clues and analyses described above. It may be, however, that the dictionary provides the only means of arriving at either the pronunciation or the meaning of a new word.

To use a dictionary, the child must know how to locate the particular word, how to work out the pronunciation given in the dictionary, and how to select the appropriate definition. To locate the word entry a knowledge of alphabetical sequence is necessary.

Furthermore, the child must know that the location of the word depends also upon the sequence of letters within the word, that is, that *calcium* would follow *calcite*, and so on. Frequently, derived and inflected forms of words are not listed separately in abridged dictionaries. Since many of these derived and inflected forms occur in reading material, such as *treeless* or *barnlike*, structural analysis is needed to determine the root word. This root word is the entry word employed to work out pronunciation and meaning of the derived or inflected form with which the pupil is concerned.

Most dictionaries now include a system of phonetic symbols. Each word entry is followed by a phonetic spelling using these phonetic symbols. The child, therefore, should learn to use this pronunciation key which shows the pronunciation of each word. A prerequisite to use of the pronunciation key and the phonetic alphabet employed in dictionaries is skill in phonetic analysis as described earlier in this chapter.

For the most part, use of the dictionary to get the meaning of a word should be to comprehend the meaning of a sentence or passage involving the word. In the dictionary several meanings of a word are listed. The meaning appropriate to a given context must be selected and this meaning fitted back into the context where the word was encountered. Use of the dictionary is aided by specific guidance in the location of words, techniques of phonetic pronunciation, and selection of the appropriate meaning.

The Sequential Program in Word Recognition

Independent application of even the more simple types of word analysis can be made by the child only after he has developed the many skills and understandings which come with normal progress in initial reading experiences and in the early stages of systematic reading instruction. To become a mature reader necessitates thorough acquaintance with and skill in the use of all the word recognition clues and techniques from the simplest to the most complex. Teaching these clues and techniques should follow a normal and logical developmental sequence. Professor W. S. Gray (73) has divided this sequence into five major steps or levels with

the caution that the levels will necessarily overlap as each successive gradation builds on and utilizes the skills acquired at preceding levels. Throughout, progress is gradual and by easy steps, with much repetition. The levels outlined here will follow, for the most part, those given by Gray. For details of teaching procedure, see his discussion.

Clues to word recognition

Prior to outlining the application levels for word analysis, the rôle of picture, word-form and context clues may be reviewed. Picture context clues to word recognition are employed from the very beginning of reading instruction. Although most useful during the first grade, they make considerable contribution throughout at least the three primary grades. Even at higher levels, picture clues may be an aid to word recognition and meaning in special situations, such as the aid from pictures, maps, and diagrams in geography.

Word-form clues are also useful from the beginning of reading instruction. And, as noted earlier, they continue to be an important aid to word recognition throughout life. At all levels of reading instruction, therefore, there should be conscious use of word-form clues.

Use of verbal context clues are introduced as soon as systematic reading of connected material occurs. This is another clue that should be employed at all levels of reading. It not only is used in combination with word-form clues to unlock words, but also provides the final check on the adequacy of word analysis and the appropriateness of dictionary meanings.

These clues are used in conjunction with each other and combined with word analysis techniques at all levels in the development of word identification and recognition. Development of skill in the use of the clues is gradual and is the result of training and practice. Therefore, training to perfect the use of these clues should continue over a period of several grades. In the following discussion of the sequential program for word analysis, it is intended that picture, word-form, and context clues will be introduced and coördinated with the word analysis. There are few instances of

word analysis in which these clues cannot be employed to good advantage as a supplementary aid.

Word analysis techniques

Steps in a sequential program in the teaching of word analysis should follow a natural order that is logical and that is in harmony with successful teaching experience. It has already been suggested that training in the use of *initial consonants* be introduced soon after formal reading begins. The goals of the *first level*, after having learned to use initial consonants, consist of consonant substitution, use of certain inflectional endings, and analysis of certain compound words that are met in context.

Level One. Having learned the use of initial consonants, the child is ready to learn to substitute one phonetic element for another in words that are like a known word except for a single consonant at the beginning or at the end of the word. This *consonant substitution* avoids producing an unblended series of sounds. Known words form the basis for the substitution. Thus when the word *make* is known, the child should be able to derive the sounds of *bake*, *take*, and *cake* by initial consonant substitution. He notes that *bake* looks like *make* except for the first letter, and mentally substitutes *b* for *m* and of course checks the meaning with the context. Note that in consonant substitution there is a separating out and identifying of the phonetic element *ake*. Word-form clues are used here. The familiar word form *make* is compared with that of *bake*. *Similarities and differences are noted and then the consonant substitution made.* Final consonant substitution is made in a similar manner. As skill is acquired and reading progresses, consonant substitution may be employed with longer words.

It is easier for the child to learn consonant substitution in word analysis than to learn long lists of phonograms. Furthermore, attention is directed to complete pronounceable units instead of to vowel-consonant combinations. This fosters the desirable perception of total word forms. Mastery of the substitution technique will facilitate the identification of many new words. The technique is applicable throughout the elementary grades.

At this first level the child should also be taught to identify a

known root word which occurs with the inflectional endings *-s*, *-s*, *-ed*, and *-ing* as in *runs*, *dog's*, *looked*, and *looking*. The known root is then blended with the appropriate ending.

Also at this level, the child should learn to identify the two known parts of a compound word, as in *sidewalk*, *backyard*, and *blueberry*. The child will have occasion to use this technique in the first as well as in subsequent grades.

Level Two. At this level the child builds on and amplifies what he has learned at level one. He will learn to attack four types of words encountered in context. As some skill with single consonants has been achieved, the sounding of initial and final consonant digraphs as *th*, *wh*, *sl*, and *st*, may be introduced. They are employed like single consonants and like consonant substitution except that the consonant blend is used instead of a single consonant sound. Unless these are recognized as special combinations, the child who is already working with single consonants will be in trouble. Since several consonant digraphs occur at beginnings or ends of many words, they will soon be noted by the child.

A second type constitutes words like known words except for the endings *-es*, *-er*, and *-est*. The known root word is identified and then this is blended with the inflectional ending as for *wishes*, *slower*, and *slowest*.

In a third type, the final consonant of inflected forms of certain known words is doubled before *-ed*, or *-ing* are added as in *slipped* and *running*. The second or added consonant is usually silent. The known root word and inflectional ending are identified and then blended.

The final type at this level deals with inflected forms of unknown words where the root word is like a known word except for initial or final consonant or consonant blend. After noting the root word and the ending, the root word is identified by consonant substitution and blended with the ending.

Level Three. This level is concerned mainly with the determination of vowel sounds in new words. Long vowel sounds are given by vowel names and are easily remembered. Short vowel sounds, however, are less easily remembered. After learning that vowel sounds are usually short, the child may progress to learning when

they are long. This involves learning the final *e* rule as applied to such words as *make* and the double vowels as *ee*, *ea*, *oa* in such words as *feet*, *beat*, and *goat*. Progress is soon made to use of the diphthongs such as *ai*, *oi*, *au*, so that these will not be confused with the double vowels.

Also at this level the child becomes familiar with inflected forms of known words where the final *y* is changed to *i* or the final *e* is dropped before the ending as in *happier* and *making*. Similarly he learns to analyze known words in which the suffixes *-y* or *-ly* have been added to known root words as in *rainy*, *slowly*, and *noisily*.

When a suffix in inflected or derived forms is known but the root word is unknown, they are separated mentally, the root word identified by phonetic analysis, and then the two are blended. Analysis is made of compound words in which one part is known and the other is an unknown word of one syllable. The two parts are separated mentally, the unknown part identified by phonetic analysis, and then the two parts blended.

Level Four. At this level phonetic and structural analysis are employed for identification of polysyllabic words. Development of skill in syllabification will be necessary. Principles which determine vowel sounds and knowledge of accent are involved. It will be necessary also to become familiar with a number of the simpler prefixes and suffixes to facilitate analysis of words made up of one of these plus an unknown root word. Many techniques learned at previous levels, that is, such as changing *y* to *i* before an ending is attached, find important use.

Level Five. The techniques of structural and phonetic analysis in conjunction with word-form and context clues are employed for word identification and recognition at the first four levels. These procedures can be readily accomplished only with words that are in the speaking and understanding vocabulary of the individual. When the meaning as well as the pronunciation are unknown, identification and recognition must be developed by use of the dictionary. This constitutes level five.

General. The learning of soft *c* and *g* has no definite location in phonetic sequences. After some acquaintance with other initial consonants, the soft *c* and *g* may be taught as they occur in words

evaluated in terms of relative importance. Although some may be used more frequently than others, all are important. The facile reader will be thoroughly familiar with all of the clues and techniques, will be practiced in their use and will know how to select the proper combination of clues and techniques to unlock quickly a particular word.

An extensive and continuing program of teaching is necessary for mastery of the clues and techniques. In most instances, progress will be slow, involving much repetition. Patience and persistence, however, will yield good returns in terms of improvement in reading.

Although different aspects of the program of word recognition have been discussed separately, the teacher should keep in mind that there is much overlapping of the aspects both in her teaching of the clues and techniques, and in the use of them by children in unlocking words.

The program for developing word recognition, briefly outlined in this chapter is designed for application throughout the elementary grades. The program will start when children begin to read in the first grade, and will evolve and expand as the child progresses through the grades. Most of the formal training will be completed by the end of grade four, but there will be occasion to review and to give additional practice even through grades five and six. The clues and techniques will continue to be used by the reader as long as he does any reading.

As noted earlier, the development of vocabulary knowledge and comprehension are intimately related to development of word recognition. Here they are separated only for convenience of discussion. As we progress through the next chapter the relationship will become clearer. The teacher in her practice will, of course, combine the two in her organized program for promoting progress in learning to read.

Selected References

- ADAMS, Fay, GRAY, Lillian, and REESE, Dora, *Teaching children to read*. New York: The Ronald Press Company, 1949, chap. 11.
BOND, Guy L., and WAGNER, Eva B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chap. 10.

CHAPTER IX

Development of Word Meanings

The definition of reading adopted here emphasizes meanings, comprehension, and thinking. Basically, learning to read involves development of facility in comprehension of the meanings represented by printed or written symbols. These meanings may be drawn directly from past experience or they may be new meanings resulting from a manipulative process of recombining and reorganizing concepts already possessed by the reader. A child develops into a good reader to the degree that he acquires a meaning vocabulary and progresses in ability to understand and interpret printed materials.

The development of word meanings and word recognition skills are the two most essential aspects of vocabulary building. New words are incorporated into the speaking and understanding vocabulary of the child. Then, to associate these new words with the printed symbols which represent them, word identification and recognition clues and techniques are applied. Proper coördination of these two aspects of vocabulary development will lead towards satisfactory comprehension in reading.

Word identification and recognition should be subordinate to concepts or meanings. To be most serviceable, these mechanical aspects of reading must operate promptly and habitually so that the major portion of attention may be devoted to meaning and comprehension. That is, it is the function of systematically developed mechanics to promote facility of understanding. Reading to learn springs naturally from this kind of learning to read.

Word recognition divorced from meaning, or when meaning is

vague and unclear, results in mere verbalism—the pronunciation and use of words in context without comprehending their meaning. This blocks the way to the manipulation and organization of meanings in purposeful reading. The thinking side of reading is inhibited or eliminated so that true reading is impossible. Although development of word identification and recognition should be systematically taught, these mechanical aspects should receive an emphasis which is secondary to the development of meaning, comprehension, and usage of words. Thus, word identification and recognition should be coördinated with development of concepts in an integrated program in order to achieve growth toward an adequate reading vocabulary.

The development of a balanced sequential program of word recognition has been considered in the previous chapter. This chapter will be devoted to development of word meanings. The principles and techniques outlined are to be considered developmentally and are therefore applicable at successive levels throughout the elementary grades. The rate of progress in vocabulary development will depend upon the particular teacher and the organization of her reading program of instruction, upon the organization of the reading program in the particular school, and upon the individual abilities and needs of the pupils. The teacher, therefore, will adjust the vocabulary training described here to her program, keeping in mind the basic principles, goals to be achieved, and the relation of reading to allied language arts.

Development of a Meaning Vocabulary

Development of a meaning vocabulary involves the building of concepts or understandings. Utilization of these concepts in communication is an integral part of the development. That is, correct use of the concepts in improving proficiency in listening, in talking, and in reading is essential. Only when concepts are vivid and accurate will there be satisfactory comprehension and interpretation in reading.

At first, words acquire meanings through association with some personal experience. As language facility increases and words are

used in connection with newly experienced objects, situations, and events, concepts become clarified and enriched. When a new word is met in reading, the meanings aroused depend upon all past experience associated with the word, especially upon whatever understandings have been present in hearing the word and using it in similar context.

Gray and Holmes (88) have outlined certain factors which determine growth in the meaning vocabulary. First, the general capacity and level of maturation of the child limits vocabulary growth. At any given age level there will inevitably be wide individual differences in the range and richness of the meaning vocabulary in which children are capable of achieving. Secondly, these differences are in addition to those traceable to inequalities in the nature and variety of different children's experiences. It is for such reasons that the reading readiness program plays an important rôle in concept development. A third determinant of vocabulary growth concerns the child's curiosity about words and word meanings, a curiosity which should be encouraged at all times. A premature or excessive emphasis on oral usage can inhibit this desirable interest in words. Fourth and finally, the instruction in vocabulary building which the child receives is important. A desire to be able to speak clearly and to be able to read in order to achieve one's purposes fosters new understandings and the clarification of concepts.

In general, three approaches may be employed for developing the child's meaning vocabulary in reading: (1) varied and rich first-hand and vicarious experiences, (2) wide and extensive reading, and (3) study of words.

The experienced teacher realizes that development of meanings to the level where they are vivid and precise is a gradual process. Progress in learning word meanings is from no knowledge to vague meaning and then on to the greater clarity and enrichment that comes with precise use and understanding of the several meanings of the word. All of this requires well organized instruction.

The Rôle of Experience

There are two general types of experience which may be employed to develop word meanings. The first and most effective is direct or first-hand experiences. These should be supplemented by second-hand or vicarious experiences.

First-hand experiences

First-hand experience involves direct contact with situations, people, objects, and institutions in the environment available to the child. Most of these contacts will be in the immediate environment but some may result from attendance at summer camps, or from traveling with parents, or from other special trips and excursions. To be instructive the experience must have significance for the child.

One general class of first-hand experiences involves carefully organized and supervised trips to such places as the school heating plant, the post office, the fire station, a zoo, a city park or botanical garden, a grocery store, a department store, a manufacturing plant, a concert, a farm, or a dairy. These experiences should be as varied in scope as possible.

Another form of first-hand experience is provided within the school by demonstrations and laboratory work. Concepts that may be developed in this way include examining the structure of plants and the influence of different factors on plant growth, the effect of vitamins on health and growth in a white rat, the nature of a vacuum, or osmosis.

The value of first-hand experience in developing and clarifying concepts probably cannot be overemphasized at any school level. *It appears to be the most effective procedure in developing a meaning vocabulary.*

Vicarious experiences

It is neither feasible nor possible to develop the meaning vocabulary by direct experience alone. Much worthwhile experience can be brought to the pupils by means of secondary media. These

include pictures, charts and maps, models, slides and film strips, motion pictures, radio and television programs.

Vicarious experience is also achieved through stories told or read by the teacher or pupils, dramatizing of incidents by children, instructional talks by the teacher and outsiders, and so on.

Rôle of planning and discussion

To achieve maximum profit from an experience, whether direct or vicarious, careful planning is usually necessary. Since the meanings to be achieved in reading are determined by the nature and clearness of one's concepts, these experiences should yield as varied and accurate meanings as possible. Children should be thoroughly prepared prior to being exposed to a particular experience so that they may attend to and comprehend as many aspects of it as possible. They should know what to look for and what questions will be cleared up. In other words, the acquiring of experience is made a purposeful activity.

Experiences become profitable to the degree that the child thinks about them, seeks out their meaning and makes use of them in subsequent speaking, listening, and reading. To provide maximum encouragement toward this end there must be an opportunity both before and after participating in the experience, for discussion under teacher guidance. During the exchange of ideas and the answering of questions there will be a chance to define purposes, to extend information, to clear up misconceptions and to clarify and enrich meanings. This preparation for experience and the discussion after having it is highly profitable irrespective of the nature of the experience, whether it consists of a story told by the teacher, a movie, slides, a story read by the children themselves, or a sight-seeing trip. Concept building is also promoted by opportunity to exchange experiences in informal discussion. In all this planning and discussion the child should be encouraged to seek meaning in everything he encounters and when necessary to ask frankly for additional explanations and further clarification of meaning.

An important aspect of concept development is the growth in meanings that comes with usage. A ready and proper use of

vocabulary in speaking, and ability to listen to the talk of others with understanding is necessary for development of a good speaking and comprehending vocabulary. There should be ample opportunity in all school activities, therefore, for children to talk about the concepts involved in the various kinds of experience mentioned above. Expression of ideas in writing is also a practice which will help to clarify word meanings.

Any program for acquisition of a meaning vocabulary should be developmental in nature. Thus readiness for reading any specific unit and the progress to new materials at successive levels necessitate the development of new concepts as well as the enriching and clarification of those already acquired. Experience units, both first-hand and vicarious, together with discussions and other aids find legitimate and frequently essential use in developing concepts throughout the grades.

Wide Reading

Extension and enrichment of the meaning vocabulary is aided by wide reading of interesting and relatively easy materials. Wide reading is a form of vicarious experience closely related to first-hand experience and therefore provides enrichment. Each new book, story, or article may introduce new words to the reader and repeats old words. Repetition of old words in a variety of contexts broadens and clarifies their meanings. The more important new words will be encountered with sufficient frequency in different contexts to acquire more and more meaning. Eventually, for the child who is making satisfactory progress in reading, they become commonplace and meaningful. To a considerable extent the large meaningful vocabulary of the mature reader is acquired through well motivated wide reading. Motivation is maintained by guiding the child to material which is interesting to him and which is pitched at just the proper level of difficulty so that the context will yield a maximum amount of intelligible clues to the meaning of the new word.

Correct guidance in wide reading leads to exploration of many areas of experience, promotes extension of interests, and brings

contact with many new words. To develop highly accurate concepts, however, for words that are not key words and which are seldom encountered is relatively unimportant. Furthermore, guidance in wide reading provides opportunity for and encourages the use of the dictionary and reference sources needed to clarify meanings.

In the wide reading program the proper use of clues from the meaningful context is essential if the concepts or meanings of the new words encountered are to be learned satisfactorily. In this respect, both picture and verbal context may furnish helpful patterns of meanings. To derive the meaning of a new word from context, the meanings and relationships of the other words in the sentence or paragraph must be readily comprehended by the pupil. In reading of this kind, new words should not occur too frequently, probably not oftener than one in 100 to 200 running words. This is what is meant by supplementary reading of material that is not too difficult.

Evidence presented by Haefner (89) shows that normal pupils profit considerably in learning word meanings through wide reading with little or no guidance by the teacher. Nevertheless, some systematic training designed to aid children in developing ability to discover and use clues to the meaning supplied by the context in supplementary reading materials is desirable. McCullough (123) outlines several such clues. Thus the word may be defined in the sentence, it may be recognized as a synonym, or it may sum up particulars of the situation. Again a meaning clue may come from experience or from language patterns such as familiar idioms and sayings. Sometimes a clue to the new word comes from the mood or feeling tone reflected in the context. Artley (5) has suggested several ways in which the meaning of a word may be presented in context. Children could acquire new vocabulary from their reading more easily if authors would make greater use of certain procedures. For instance, the definition or meaning of a word can be given in parenthesis, in a phrase or a clause inserted in the sentence, in a synonym presented along with the word, or in an additional full sentence. Furthermore, the material can ordinarily

be written so that there is only one meaning possible for the new word. Similes and metaphors are also helpful.

The number of different words which occur in books recommended for elementary school children is great. A large portion of the words occur only rarely. It is impossible, of course, to teach all or even most of the words a child will meet in his reading. According to Thorndike (170) the best solution to the problem of *vocabulary building* is to provide pupils with a wide variety of interesting and easy books. Many new words and concepts can be learned from context through wide reading in these books.

Although wide reading under teacher guidance contributes greatly to development and enrichment of a meaning vocabulary, it by itself is not enough. Word meanings should be taught as an integral part of the balanced program for vocabulary development.

The Teaching of Word Meanings

The value of teaching word meanings has been demonstrated by Gray and Holmes (88). It has been emphasized frequently that direct, systematic, well planned drill on words in context is valuable but that teaching of words in isolation is usually wasteful and ineffective. The exact meaning of a word very frequently depends upon the context in which it occurs. Furthermore, familiar words used in an unfamiliar sense are encountered. Teaching these new meanings of old words and the relation of the particular meaning to context is a considerable part of vocabulary training.

The vocabulary even in material written for children is enormous. Direct teaching of meaning, therefore, must necessarily be confined to the more important words. With material of appropriate difficulty, the new words can usually be taught as they are encountered in context. It is necessary to teach those words whose meanings are essential for understanding the passage. Compiled word lists are useful for identifying the more important words in the *reading vocabulary at various grade levels*. (See references 20, 39, 47, 58, 108, 109, 111, 159.) The words that are common enough to get into the word lists form a core that accounts for a large proportion of the words in reading matter ordinarily en-

contact with many new words. To develop highly accurate concepts, however, for words that are not key words and which are seldom encountered is relatively unimportant. Furthermore, guidance in wide reading provides opportunity for and encourages the use of the dictionary and reference sources needed to clarify meanings.

In the wide reading program the proper use of clues from the meaningful context is essential if the concepts or meanings of the new words encountered are to be learned *satisfactorily*. In this respect, both picture and verbal context may furnish helpful patterns of meanings. To derive the meaning of a new word from context, the meanings and relationships of the other words in the sentence or paragraph must be readily comprehended by the pupil. In reading of this kind, new words should not occur too frequently, probably not oftener than one in 100 to 200 running words. This is what is meant by supplementary reading of material that is not too difficult.

Evidence presented by Haefner (89) shows that normal pupils profit considerably in learning word meanings through wide reading with little or no guidance by the teacher. Nevertheless, some systematic training designed to aid children in developing ability to discover and use clues to the meaning supplied by the context in supplementary reading materials is desirable. McCullough (123) outlines several such clues. Thus the word may be defined in the sentence, it may be recognized as a synonym, or it may sum up particulars of the situation. Again a meaning clue may come from experience or from language patterns such as familiar idioms and sayings. Sometimes a clue to the new word comes from the mood or feeling tone reflected in the context. Artley (5) has suggested several ways in which the meaning of a word may be presented in context. Children could acquire new vocabulary from their reading more easily if authors would make greater use of certain procedures. For instance, the definition or meaning of a word can be given in parenthesis, in a phrase or a clause inserted in the sentence, in a synonym presented along with the word, or in an additional full sentence. Furthermore, the material can ordinarily

be written so that there is only one meaning possible for the new word. Similes and metaphors are also helpful.

The number of different words which occur in books recommended for elementary school children is great. A large portion of the words occur only rarely. It is impossible, of course, to teach all or even most of the words a child will meet in his reading. According to Thorndike (170) the best solution to the problem of vocabulary building is to provide pupils with a wide variety of interesting and easy books. Many new words and concepts can be learned from context through wide reading in these books.

Although wide reading under teacher guidance contributes greatly to development and enrichment of a meaning vocabulary, it by itself is not enough. Word meanings should be taught as an integral part of the balanced program for vocabulary development.

The Teaching of Word Meanings

The value of teaching word meanings has been demonstrated by Gray and Holmes (88). It has been emphasized frequently that direct, systematic, well planned drill on words in context is valuable but that teaching of words in isolation is usually wasteful and ineffective. The exact meaning of a word very frequently depends upon the context in which it occurs. Furthermore, familiar words used in an unfamiliar sense are encountered. Teaching these new meanings of old words and the relation of the particular meaning to context is a considerable part of vocabulary training.

The vocabulary even in material written for children is enormous. Direct teaching of meaning, therefore, must necessarily be confined to the more important words. With material of appropriate difficulty, the new words can usually be taught as they are encountered in context. It is necessary to teach those words whose meanings are essential for understanding the passage. Compiled word lists are useful for identifying the more important words in the reading vocabulary at various grade levels. (See references 20, 39, 47, 58, 108, 109, 111, 159.) The words that are common enough to get into the word lists form a core that accounts for a large proportion of the words in reading matter ordinarily en-

countered at a given grade level. To be ready for proficient reading at succeeding grade levels, the child should know these common words of the preceding levels. Nevertheless, there are objections to using these word lists mechanically as measures of vocabulary difficulty. In general, they represent *frequency of use* rather than difficulty of understanding. Some words not in the lists are more readily understood than some of those included. Lists of words graded as to difficulty of understanding are not yet available.

At the beginning of reading, the teaching of word recognition is dominant. As the child progresses from grade to grade the systematic teaching of word meanings becomes increasingly more important.

Specialized vocabularies

Satisfactory comprehension of materials in the content fields depends largely upon an acquisition of the meanings of concepts designated by the technical terms found in these fields. Such areas as geography, arithmetic, history, and science have specialized vocabularies that must be learned. Many terms such as *quotient*, *meridian*, *stamen* are usually poorly understood. Cole (30) has compiled useful lists of the most important technical words in various subject-matter fields. When an important new concept is encountered in any field of reading, there should be detailed explanation of word meanings so that the pupil can learn the concept embodied in the word. Teachers should place more emphasis than they ordinarily do upon technical word meanings. Furthermore, the writing of books in the content fields might be improved if the authors better understood the reading limitations of the children who are to use them as texts. The fact that achievement in a content field is best reflected by vocabulary knowledge in that field further emphasizes the desirability of teaching pertinent word meanings and of clarifying concepts. Traxler (179), for instance, found very high relationships between vocabulary knowledge in the social studies and measured achievement. The correlations ranged from .78 to .88.

Methods of teaching word meanings

It should be re-emphasized that the study of words is only one approach to the learning of word meanings. Furthermore, the study of words should be well integrated with the approach through experience and with wide reading in the program organized for vocabulary development. The report of Addy (2) reveals that teachers and supervisors favor methods which involve maximum use of context and experience. The most favored methods for fixing the meaning of a word involved some aspect of usage, as use in conversation. Or pupils might be taught to select the word which represents a given meaning most effectually. In the present discussion, the author considers that word study can be profitable in developing meaning only to the degree that it is integrated with use of the word in context, with experience, with oral and written usage, and with wide reading in a variety of situations. In the first place, therefore, word study should deal with new words met in context. Learning the word meaning will then fulfill an immediate need, that is, the desire to comprehend the passage. Secondly, word study should involve use of the word in discussion and in oral and written reports. Finally there should be reading of considerable material in which the word occurs frequently. These techniques for keeping the development of word meanings in context and for fixing the meanings through usage are not sequential steps. They should be coördinated aspects of a single integrated program.

Detailed exercises for word study cannot be given here. Helpful suggestions will be found in McCullough, Strang, and Traxler (124), Harris (91), Betts (7), Durrell (46), and Gates (63). Types of word study that, when coördinated with context and usage, have been found useful in developing meanings or concepts include: (1) use of the dictionaries and glossaries; (2) study of verbal relations such as synonyms and opposites; (3) study of prefixes, suffixes, and roots; and (4) using words in different ways, that is, words with more than one meaning.

Semantics

In most of the more recent books on reading, some attention is devoted to semantics, the science of meanings. It is concerned with the study of the meanings of words to achieve greater clarity in thinking and improve speaking, reading, writing, and listening. The nature of semantics is clearly discussed by Lee (119) and Hayakawa (93).

Procedures for applying semantic principles in teaching reading have not yet been developed although Harris (91) states that some attention is being devoted to the problem. For one thing, semantic principles would require that more emphasis be placed upon clarification of word meanings and upon dependence of a word meaning upon context. According to the semantic approach, word lists based upon frequency of use are inadequate. Variation in meanings should also be considered. Both authors and teachers will profit by progress in the realization of a practical program based on such principles.

Vocabulary Control in Reading

There is not complete agreement concerning the degree of vocabulary control desirable in books to be used by children in learning to read. About 25 years ago much publicity was given to the apparently unjustifiably large and difficult vocabularies in children's readers. Since then there has been reduction and simplification of vocabulary load, with rather precise attention to grading, especially in basic reading series. Various word lists (see above) have been prepared showing frequency of occurrence of words in children's reading material, or grade placement of words, or both. These lists are useful in identifying a large per cent of the common core of words used in ordinary reading material. The lists have also been used by authors and publishers of textbooks for children. In some instances, the assumption that vocabulary should be rigidly controlled and limited, together with excessive word repetition, has led to extremes which are undesirable. Furthermore, as already noted, word lists give frequency of use

rather than difficulty of understanding. Undoubtedly there is some relation between frequency of use and degree of understanding. Strict adherence to such lists by authors and publishers, however, can produce unfortunate results.

With rigid control of vocabulary in beginning reading texts, little opportunity is provided for vocabulary building, the writing of interesting stories or the presenting of useful information. The result is monotony and consequently a loss of interest on the part of the child who is learning to read.

Fortunately this extreme trend has been avoided in several recently published basic reading series. In these books the vocabulary load has been considerably lightened in comparison with many older texts, new words are introduced more systematically, and satisfactory repetition is provided. Beery (6) in the *Forty-eighth Yearbook*, states the case well. "Words needed to write interestingly and clearly for children should not be arbitrarily excluded solely because they do not appear on some basic list" (p. 179). In any case, to promote growth in reading, basic materials should be relatively simple. The materials should be so organized that the common words are taught early. Following initial presentation, provision should be made in the same book and in subsequent materials for systematic reviewing of the word. Furthermore, the introduction of new words should be so spaced that most of the words in a given selection are familiar, that is, about 95 per cent should be familiar. To a considerable degree this has been achieved in recent basic series. The child, therefore, is more able to concentrate on apprehension of meanings in his reading.

Proper control of vocabulary in reading instruction implies an intimate coördination of word recognition and word understanding. When a new word is introduced, there is the problem of developing recognition of a word whose meaning is clearly comprehended by the child. The teacher, therefore, employing procedures discussed above, must make certain that the meaning of the new word is clear to each child.

Teaching a new concept will depend upon the concept and also upon the grade level when the word which stands for the concept is introduced. For instance, clarification of the concept involved

in *traffic signal* may depend upon direct experience plus discussion. But developing the meaning of *plateau* will be likely to involve vicarious experience (pictures, maps, and so on) plus teacher explanation together with guided class discussion. As the child progresses in school, concepts are derived more and more by vicarious means.

There are indications that the acquisition of meaning and recognition vocabulary cannot be satisfactorily achieved in terms of a controlled vocabulary alone. Evidence presented by Seashore (148) and by Seegers and Seashore (151) suggests that the understanding vocabulary of children through the grades has been greatly underestimated. Other writers including Witty (190) have also been concerned by tendencies toward too strict vocabulary control. On the other hand, Yoakam (195) found that several history and geography texts were written in vocabularies well above the grade levels where they are supposed to be used. It seems to the writer that the problem here is two-fold: *First*, the introduction of new words must be limited to the capacity of the children to acquire recognition of those words. *Secondly*, the reading program should make as much use as possible of the understanding vocabulary of the child. It is obvious from the first point that there should be a proper vocabulary control in *basic series of readers*. This control means neither severe restriction of words used nor an excessive vocabulary burden. It does mean the introduction of enough words to challenge the interest of pupils and to stimulate vocabulary growth, all the while keeping the load within the children's capacity for achieving word recognition. Vocabulary control in basic series of readers, therefore, is necessary, but it must be the product of a very carefully conducted evaluation.

It is obvious that the understanding vocabulary of most children is broader than any which could be included in basic readers. And we must remember that the use of less common words (that is, those not found in graded lists) give color and distinction to communication when employed along with more common words. Work with basic readers should be supplemented, therefore, with a program which involves more of the understanding vocabulary of

the child as well as one which enriches and extends development of the meaning vocabulary. This is best achieved by supplying a wealth of suitable supplementary reading materials at each and every reading level. Such a program, properly guided, furnishes an excellent means of providing for a wide variety of pupil needs.

Developmental Sequences in Word Meanings

The principles and methods of vocabulary development discussed here are not all applicable to a single reading level. They should be coördinated into a sequential program in which what has been already learned forms the basis for building and expanding the new. In the early stages, word meanings are cultivated by the *direct and vicarious experiences which bulk large in the reading readiness program prior to and during beginning reading*. An important aspect of reading readiness at successive stages of reading involves the development of word meanings and concepts necessary for comprehension of material to be read in each new unit. This is achieved by a coördination of all the methods discussed above. The sequence of introducing and teaching words and their meanings will be determined by the basic reader series used, by the organization of the school program, and by the instructional procedures selected by the particular teacher. The sequence will, of course, be based upon the logic of the situation and be guided by the experience of the teacher.

Although the sequence for developing word meanings may not be separated into discrete steps, the need for a sequential program will be sensed by the teacher. Word meanings which are learned at the beginning stages are essential for giving the verbal context in which the new word occurs. For the meaning of a new word must fit the context in which it is found. There can be meaning context only when words and their relationships are comprehended, so new meanings are fixed by relating them to what has already been learned. The clearer the word meanings at any level, the more adequate is the foundation for acquiring new meanings and concepts at succeeding levels.

The rates at which children acquire word meanings vary greatly.

For a particular child the rate of progress will depend upon both his learning ability and what he has learned up to the time the new concepts are introduced. The clear inference is that teaching vocabulary sequences should be adjusted to individual differences.

Summary

The development of word meanings and of word recognition skills are the two most important aspects of vocabulary building. Comprehension in reading depends upon the coördination of these aspects in reading instruction. To be most serviceable, the process of word recognition should operate promptly but be subordinated to comprehension. Undue emphasis upon word pronunciation without a clear understanding of meanings results in verbalism.

The development of a meaning vocabulary involves the building of concepts or the understandings associated with words. This is achieved ordinarily by an instructional program which provides experiences, extensive reading and study of words. These three approaches to teaching word meanings should be coördinated in a unified program. Both first-hand and vicarious experiences are used. Meanings derived from experience are enhanced by discussion and by incorporating vocabulary terms into speaking and writing usage. Word meanings are extended and enriched by extensive reading of varied materials which are interesting and relatively easy. The learning of word meanings by direct study of words has a place in the balanced reading program. This last approach is justified only for the study of the more important words which are met in context. Teaching of words in isolation is likely to be unproductive.

Vocabulary control is necessary in a developmental reading program. Nevertheless, excessive restriction in the number of different words used must be avoided if the reading material is to challenge the interest of the pupils and stimulate a desirable rate of vocabulary growth.

Selected References

- BOND, Guy L., and WAGNER, Eva B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chap. 9.
- BROOM, M. E., and others, *Effective reading instruction*. New York: McGraw-Hill Book Company, Inc., 1942, chap. 3.
- HARRIS, Albert J., *How to increase reading ability*, 2nd ed. New York: Longmans, Green & Company, 1947, chap. 11.
- RUSSELL, David H., *Children learn to read*. Boston: Ginn and Company, 1949, chap. 9.
- WITTY, Paul, *Reading in modern education*. Boston: D. C. Heath & Company, 1949, chap. 4.

CHAPTER X

Development of Comprehension

The teaching of reading is concerned at all grade levels with comprehension. The acquisition of a sight vocabulary and the development of word recognition skills, concepts, and verbal facility all promote the understanding of the meanings represented by printed symbols in words, sentences, and paragraphs. The degree to which these meanings are clearly and accurately understood and interpreted by the reader represents the degree to which he is a good reader. According to the definition adopted here, there can be no such thing as reading without understanding. Word calling cannot be classified as reading.

Although the recognition of words and the understanding of word meanings are essential, something more is needed. The elements in a sentence must be evaluated and their organization in relation to each other understood. Word meanings which are in harmony with the rest of the context must be selected. Furthermore, to comprehend a paragraph or larger unit, both the relation between elements in a sentence and the relation among sentences need to be understood. Evaluation of these relationships involves thinking and is comparable to solving a problem. So recognition of words, understanding of word meanings, and comprehension are all interdependent aspects of the reading process.

To develop proficiency of comprehension in reading, certain sub-skills or "mechanics" such as word identification and recognition, must be satisfactory and have become largely automatic. Either inadequate control over these mechanics or any program

of instruction which overemphasizes mechanics will prevent the achieving of maximum comprehension.

In teaching it has become the practice that instruction in developing word meanings and in comprehending sentences, paragraphs, and larger units shall progress hand in hand. The present chapter deals with various aspects of the program for improving comprehension.

Listening and Reading Comprehension

The processes involved in comprehending printed material are essentially the same as for understanding spoken words. In both cases, perception of words arouses meanings which lead to comprehension. The meanings aroused by the perceived words depend upon one's whole background of experience including whatever facility in language usage one possesses for communication. At any given time, the length and complexity of a selection which can be comprehended varies greatly from child to child. Some may be limited to a sentence, others to a paragraph, while some may be able to comprehend longer units. According to Gates (63) the child, provided he is not handicapped by difficulties in mechanics such as word recognition, should be able to comprehend as long and as complex a reading unit as the same material would comprise if in spoken form. Evidence concerning comparison of listening and reading comprehension has been summarized by Goldstein (70). Although the findings are not uniform, the following trends are evident: (1) At the lower-grade levels the auditory comprehension tends to be equal to or better than reading comprehension. (2) For pupils of lower ability, auditory comprehension tends to be equal to or better than reading comprehension. (3) For more skilled readers and for those of higher ability, however, *reading comprehension tends to be equal to or superior to auditory comprehension*. (4) For college students auditory comprehension tends to be superior for easy material, reading comprehension for difficult material.

These results suggest that in the beginning stages, while children are in the process of mastering the mechanics of reading, listening

comprehension tends to be superior to reading comprehension. As soon as the mechanics have become largely automatic, which occurs sooner for the more able child, the two modes of comprehension become equivalent. Then as greater proficiency and maturity are reached, reading comprehension may become greater than listening comprehension. This appears to be an understandable progression. In the early grades considerable attention must be devoted to development of word identification and recognition. *As this skill is acquired, more attention is freed to devote to comprehension processes.* Then with the richer background of reading experience, with the greater maturity and increased reading proficiency attained in the upper grades, there is equal or better reading than auditory comprehension.

The implications of these trends for teaching seem clear. In the early grades, word recognition and other mechanics should be developed effectively but should be relegated to their appropriate place. That is, as soon as possible they should become automatic. And from the very beginning there should be a strong emphasis on comprehension. Then with the mastering of the mechanics, reading comprehension is freed from hindrance, and under guidance becomes more and more proficient. Thus instruction plays a dominant rôle in developing reading comprehension throughout the grades.

This stress upon development of reading comprehension does not imply any lessening in emphasis on oral language and usage. As noted earlier, increased proficiency in spoken language and in listening promotes improvement in reading.

Aspects of Comprehension

In organizing a program for developing reading comprehension there are several aspects that need to be considered. At various stages the *amount of material* which can be comprehended as a unit varies greatly from child to child, particularly in the primary grades. This variation is conditioned by several factors: (1) Individual differences in intellectual ability place a limit on the amount of material which can be grasped as a unit. (2) Back-

ground of experience is another factor. The child with many experiences, either direct or vicarious, in seeing, talking, and listening will comprehend the larger units more readily. (3) When the child is preoccupied with mechanics of reading, the breadth of his comprehension will be restricted. (4) Finally, the level of reading proficiency is important. As the child becomes a more proficient reader, he will be able to grasp larger thought units. At any given time it is important for both the teacher and the child to recognize the largest comprehension unit that can be readily grasped by the child. Techniques for handling material within the limits of the child's abilities can then be organized under teacher guidance.

Degree of comprehension constitutes another aspect. At any grade level there are marked individual differences in the quality and quantity of comprehension. That is, some children will comprehend more difficult and more complex material in a more thorough manner than other children. Degree of comprehension is conditioned by such factors as proficiency in reading mechanics, facility in language usage, intellectual capacity, clearness and extensiveness of verbal concepts, background of reading experience, and purpose for which the reading is done. All of these except intellectual capacity may be improved by instruction. The completeness of comprehension which is satisfactory for material at any level of difficulty is determined by the purpose for which the reading is done. Thus the elaboration of details which should be grasped varies greatly with practical requirements of the situation. One may contrast, for instance, the need to get the main idea of a story with the details of the directions required for baking a good cake. In many situations children tend to devote greater attention to details than is desirable. An important task of the teacher, therefore, is to develop in pupils the ability to sense the degree of completeness of comprehension required by the particular reading purpose. The good reader is not the one who comprehends the most details, but the one who comprehends what is required by whatever purpose in reading he has, at any level of difficulty which he has the capacity to understand. Those

with greater intellectual capacity, will of course, be able to handle more difficult materials.

Rate of comprehension is an aspect of reading which has not been adequately evaluated either in theoretical discussion or in practice. Undoubtedly much misinterpretation has arisen from the tendency to treat speed of reading and comprehension in reading separately. In schoolroom practice this has frequently led to an overemphasis upon "speed of reading." Pupils are told of the need to increase their speed of reading and many exercises are devoted to achieving faster reading. Several standardized tests encourage this trend. As stressed by Tinker (174), the rate at which printed words can be identified can have little significance for reading unless the printed material is comprehended. Furthermore if, in teaching, proper emphasis is placed upon comprehension, development of concepts, and understanding of words, there will be little need for specific training in rate of reading. Speed will take care of itself. When material is within the child's capacity for understanding, the more clearly he comprehends it the faster will be his rate of progress. It is much better, therefore, to use the term *rate of comprehension* rather than "speed of reading." In other words, when one thinks of speed he should be concerned with rate of understanding. Furthermore, from the practical point of view, there is always the specific content to be kept in mind. So there is a rate of comprehension in reading a story or reading geography or in reading arithmetic problems or in reading science. Rate of comprehension is relatively specific to whatever kind of material is being read. When the child tries to read all materials at the same rate, as too frequently happens, difficulties arise.

Various factors influence rate of comprehension. Several of the more important of these will be mentioned: (1) Other things being equal, the clearer the comprehension, the faster will be the rate of comprehension. Difficulties of comprehension produce mental confusion and the result is a dawdling child. (2) Rate of comprehension is naturally reduced as the reading material becomes more difficult. This variation in difficulty may occur within a sentence, from sentence to sentence, from paragraph to paragraph, or from selection to selection. Difficulty in reading ma-

materials may be a function of insufficient vocabulary or of the complex relationships encountered in sentence and paragraph structure, or both. (3) An important determinant of rate of comprehension is the purpose for which the reading is done. The more skillful reader will adjust his rate to the purpose. When the purpose is to enjoy a magazine story or to get the general idea in a news story, the rate should be relatively rapid. But when the purpose is to comprehend a difficult concept in science or to understand an arithmetical problem, the rate should be relatively slow. In fact, satisfactory comprehension frequently requires rereading parts of these latter materials. Again, one purpose may be achieved by skimming while another may require careful attention to details. (4) Other factors involved in rate of comprehension include skill in use of word recognition techniques, *learning capacity*, and *efficiency of reading level*.

It is important of course that children learn to read at a rapid rate with understanding. The most effective reader is the one who comprehends at a rate which is optimum for the specific material and for the purpose for which it is being read. It is obvious that an unduly slow rate is a handicap. There is need, therefore, for teaching children to comprehend rapidly what they are attempting to read. The best way to teach a child to comprehend at an appropriate rate is to furnish him with the skills and concepts to understand properly what is to be read.

Much space has been devoted to the rôle of eye movements in reading. A survey of this material is given by Tinker (173, 176). It has been pointed out that rapid reading is accompanied by few fixations and few regressions per line of print. This has led to the use of many gadgets and techniques to train eye movements in order to promote rapid reading. This is a misplaced emphasis, for good eye movement patterns are symptoms of reading efficiency, not fundamental contributors to it. Furthermore, exercises in "training" eye movements throw the emphasis upon "speed of reading" rather than upon rate of comprehension. In fact, when comprehension is improved, this improvement will be automatically reflected in "improved" eye movement sequences and faster reading.

Consideration of the above factors makes it hazardous to specify average rates of comprehension for the different grade levels. In a given grade the average rate may be 300 words per minute for reading in one situation and only 150 words in another. It should be kept in mind that where average rates are given, they are for reading a specific kind of material for a set purpose. The published averages are usually for relatively easy material in some reading test. They are not to be interpreted as norms for all kinds of material read for different purposes.

Versatility is not an aspect of comprehension. As used here it refers to the adaptation of procedures to the requirements of comprehension in any reading situation. As teachers, we wish to develop versatile or flexible readers, for the most proficient reader is the most versatile one. He is the person who through discrimination adapts the thoroughness of comprehension to the requirements of the reading purpose. Furthermore he is the reader who changes his rate to fit the difficulty of the selection, the kind of material, and the purpose for which the selection is to be read. Training children when and how to adjust thoroughness and rate of comprehension to the requirements of the situation is one of the more difficult tasks as well as one of the most important tasks of the teacher.

Detailed discussions of the characteristics of reading comprehension are given by Gates (63) and by Harris (91).

Comprehension and Experience

Throughout this book it has been emphasized that meaning rests upon experience. Durrell (45) in the *Forty-eighth Yearbook*, points out that comprehension in reading is reflected by the degree to which the child translates "the written word into images, ideas, emotion, plans, or action" (p. 194). Accuracy of comprehension is improved by constantly relating reading to observation, conversation, and other experiences. This not only provides a check on accuracy of comprehension, but also clarifies and enriches word meanings. A program of activities promotes motivation, whatever the reading is concerned with: a dramatic

unit, a visit to a mill or a museum, preparation for seeing an unusual motion picture, or something else that requires organized background. The advantages that come from background hold for both oral and silent reading. *Since meaning should be stressed at all levels of instruction, the desirability of relating reading to experience becomes obvious. In fact, as noted earlier in our discussions, the whole program for developing concepts and the habit of demanding meaning in reading requires interaction between experiences and reading activities.*

In very general terms, there are two kinds of reading material. One furnishes information, and the other evokes feelings or emotional responses. They are not mutually exclusive, of course. It is important for the reader to learn to distinguish between writing whose primary purpose is to furnish information or widen knowledge and that which is designed to arouse emotional response. One is composed of factual material, the other is in a general sense imaginative or motivational literature.

The relating of experience activities to comprehension, therefore, will vary according to the different kinds of reading material. These relationships are ably discussed by Durrell (45). Comprehension of imaginative literature is enhanced by activities which build imagery, as, for example, looking at and discussing pictures, dramatizing, and telling stories. Two dangers should be avoided in training aimed at the comprehension of imaginative literature: (1) An overanalysis of form should be avoided, such as may result from requiring formal outlines and book reports, or the answering of objective questions. (2) It is equally hazardous to permit free reading with no supervision, or guided discussion and activity. It would be unhealthy, for instance, to encourage excessive imagery which substitutes daydreaming for reality. To avoid this some teacher help is needed. Guidance in reading imaginative literature requires understanding and careful thought and planning by the teacher.

When dealing with informative material it is comparatively easy to relate active experiences to comprehension in reading. Whether the reading is a story about travel, or something in geography, science or history, the development of concepts needed

for more complete understanding is aided by direct experience as well as by the use of pictures, maps, models, and discussions. Preparation for a unit assignment is a relevant example. This is all part of the reading readiness activities applied throughout the reading program.

Developing Comprehension

While it is essential that reading activities be related to experience as an aid to comprehension at all levels of learning, the systematic development of skill in comprehension is also necessary. Neither superior intelligence nor well motivated practice will alone insure adequate achievement in all these skills. As in all learning, the teaching task here is to discover individual needs (see next chapter) and to provide systematic practice in specific skills. Guidance in the application of these skills should be given in supplementary as well as in textbook reading. However, the danger of disproportionate concentration upon a skills program must be avoided.

Evidence upon which to base a "best" program for systematic development of reading comprehension is not yet available. Writers are far from agreement in listing what skills are essential for comprehension. Furthermore, no one has been able to identify graded steps of difficulty in each skill nor to establish the relative difficulty of the different skills. But, since comprehension is of primary concern in all aspects of reading, it has been stressed in various sections of this book. Durrell (45) outlines the characteristics of a skills program for comprehension as follows: (1) The teacher must select the essential skills to be taught. (2) An analysis of difficulties in the skills is necessary. (3) Graded exercises in suitable materials are to be employed for intensive teaching of the skills. (4) The program is organized to provide motivation by showing the child both the importance of a skill, and his progress in mastering the skill. To a large degree the skills program becomes diagnostic and remedial, for it should always be adjusted to individual needs.

Many aspects or factors involved in *simple comprehension* have

already been considered. In the primary grades, for instance, difficulties in word recognition result in lack of comprehension. To some degree this difficulty is present in the upper grades. An insufficient supply of words that are understood limits comprehension at all grade levels. Techniques for developing word recognition and vocabulary meanings have already been discussed.

Sentences and paragraphs

The understanding of sentence structure and paragraph organization affects reading comprehension. These factors have been emphasized by Thorndike (168). Further studies have been conducted by McKee and his students (126). In addition to knowing the meaning of words in a sentence, the reader must grasp the relations between the words and groups of words if he is to comprehend the meaning of the sentence. The inability to sense such relations is not uncommon. For instance, difficulties arise when the subject does not occur at the beginning of the sentence, and when the thing or person referred to by a pronoun is not readily grasped. This suggests the need of instruction in sentence comprehension as the pupil progresses through succeeding levels of learning. The kind and amount of instruction is determined by individual needs. A child's difficulty may involve lack of proper phrasing, inadequate interpretation of punctuation, inability to interpret figures of speech, use of a word meaning not appropriate to the verbal context, or inability to sort out and properly relate the several ideas incorporated in the sentence. One drawback is the fact that authors too frequently employ more complex sentences than is desirable for clear exposition.

At each level of instruction, therefore, training to adequately comprehend the kinds of sentences which will be encountered is desirable. This can be achieved by coördinating the use of several approaches. Proficiency in phrasing may be ascertained and developed through oral reading. Since in reading the child may be expected to comprehend the sentences which he can use properly in talking and which he can understand in listening, some training in oral usage and listening is indicated. Class discussions of the function of pronouns and punctuation, and the

interpretation of figures of speech will be found useful. The separate ideas in a sentence may be listed and then the inter-relation of these ideas studied. Skill in phrasing, proper use of punctuation, understanding of figures of speech, use of context, and identification of the ideas involved are all necessary to grasp the relation between elements in the sentence.

Proper comprehension of a paragraph requires an understanding of the relations between sentences in that paragraph. Many pupils are deficient in this skill. They need guidance in identifying the topical sentence containing the key idea and in interpreting its relation to the explanatory or amplifying sentences. In a similar manner, some attention should be devoted to the relation between paragraphs in longer selections. The degree of comprehension required in reading sentences, paragraphs, and larger units depends, of course, on the purpose for which reading is done. For details of procedure see McCullough, Strang and Traxler (124), McKee (126), and Harris (91).

It is now evident that clear understanding in speaking, writing, listening, and reading are interdependent. The child who uses words and sentences properly and who understands what he hears will be better able to comprehend what he reads. At any given level, training in sentence and paragraph comprehension should deal with material comparable to that which the child will encounter in his reading at that level. In organizing such training, care must be exercised to avoid tendencies to become mechanical or to divorce training from context.

Comprehension Skills

To a large degree, ability to recognize words, to understand the meanings of words, and to deal with sentence and paragraph units are involved in every reading situation. But sooner or later, as the child progresses in school, there will be need to supplement these basic abilities. A more specialized and a wider range of comprehension skills must be acquired if he is to read proficiently the many varieties of material for a great number of purposes. A firm foundation in word comprehension and the

its abuse. In any and in all skimming there should be a definite purpose and the reader should usually come out having acquired some precise and accurate information or impressions. The information may be a single item such as a date, a name, or a relevant fact. Or it may be the bold pattern or outline developed in an article, a chapter, or a book. Again it may be his intention to glean all facts relevant to one particular problem, or to locate an article or section of an article for more careful reading. Finally, a story, an article, or a book may be skimmed to get a general impression or overview of the material.

For the most part, skimming involves skill in skipping the irrelevant parts and judiciously selecting those that are relevant. The greater the background or familiarity in a field, the greater the facility in skimming. Most decidedly, skimming is an active process. It is guided by a definite purpose. The reader employs his own experience and information from other sources to check the relevance and accuracy of new acquisitions.

In the beginning, instruction in skimming should concentrate on methods of locating information. As some mastery is acquired in this, exercises may be introduced to speed up the process, such as recording the time taken to get the required information. Relatively short and simple material should be used at first. Then progress is made to longer and more difficult selections. Detailed procedures for training in skimming are given by Durrell (46) and by Harris (91).

Various exercises may be devised for practice in locating information. For instance, answers to specific questions like the following may be obtained by skimming:

- On what date did Cornwallis surrender at Yorktown?
- When was the first transcontinental railroad completed?
- In what state is Yosemite National Park?
- What state produces the most corn?
- What four labor-saving devices are used in this model home?

The prepared set of questions is presented to the pupils who find the answers as quickly as possible, and write them down. The children are taught to glance rapidly over the material, noting only what they are looking for. With practice, the item sought

will stand out as if printed in bold face type. In many instances this skimming can be done with great speed. When a set of questions is finished, the answers can be discussed and if desired some sentences read in which they occur.

Skimming to grasp the pattern of discussion or over-all impression in a book, article, or chapter is somewhat different. The following procedures are samples:

1. Examining the preface, table of contents, and section headings in chapters of a book to note what is included, or to judge whether it is likely to contain the information you are seeking.

2. Sampling various pages in a story or a novel to decide whether it is easy enough to read, or if it appeals to you as worth reading.

3. Sampling the introduction, topical sentences of paragraphs and conclusions of a controversial article to get the author's point of view.

4. Examination of the introduction, section headings, sub-headings, illustrations or maps, and conclusions of a chapter to get the frame work on which the topic is developed.

5. Examination of headlines, accompanying illustrations, and perhaps topical sentences in introductory paragraphs of newspaper articles to decide whether you wish to read the article. This procedure can be a great time-saver for the reader.

In all skimming the child must learn where to locate the source of information. In some instances the reference will be given by the teacher. In many instances, however, he must be able to size up the subject matter to be searched and then judge where it is most likely to be found. This necessitates acquaintance with source and reference works. He will need to be taught how to use indexes in textbooks and reference works as well as such general sources as the *Readers' Guide to Periodical Literature*. Probably the best training in the use of these indexes is through teacher guidance in finding materials and information which the child is going to need in achieving his objective.

Apprehending the main idea

A relatively important sub-skill in comprehension is grasping the main idea from reading a paragraph, an article, or a story. The purpose in such reading is to dig out the essential meaning, the central theme or general import of the material. This import may be an idea or it may be the feeling or emotion expressed. What results is the acquisition of a generalized impression that incorporates the central thought or impression. There is no attempt to remember details. Attention is concentrated upon selecting and understanding the essential implication of the passage as a whole. This involves discrimination and judgment. Consequently it is a relatively difficult skill to master, particularly by children of less than average ability.

Reading to extract the *main idea* is demanded in a wide variety of materials: stories, novels, most newspaper reports, magazine articles, and other informative writings. Much recreational reading falls into this class, but not all. This type of reading should be done at a relatively rapid rate though not inaccurately or superficially. Reading rapidly and accurately to apprehend the main idea is not an easy skill to acquire, partly because attitudes due to emphasis upon remembering details have tended to become habitual.

Development of skill in apprehending the main idea can be cultivated by a variety of exercises. Attention may be directed to the rôle played by introductions and conclusions, topical sentences, headings and sub-headings and newspaper headlines. In discussing these rôles, it is important that the pupil does not substitute the reading of conclusions, topical sentences, and so on, for reading the whole article. He should realize that they provide a pattern which is useful in directing his attention to the main idea developed in the entire text. Complete reading of the material is necessary for clarifying concepts and acquiring more complete understanding.

Another approach is to have pupils write a single sentence summary, or an appropriate headline to express the main idea or feeling expressed in a paragraph or in a longer article. Or the

teacher may furnish several headlines or titles and ask the pupils to choose the most satisfactory one. Class discussion concerning the adequacy of choices provides helpful training.

Following and predicting sequence of events

Maximum enjoyment and sufficient understanding of narrative material depends upon the ability of the reader to follow a sequence of ideas and to anticipate what is coming next. In addition to noting the main idea, this skill requires appraisal of the cause and effect relations between successive events and the grasping of the implications of these for the future unfolding of the plot. Development of this comprehension skill begins *relatively early from listening to stories that are told or read to the child*. Further development comes with guidance and practice during the early grades. Following and predicting sequence of events in reading is dependent upon ability to do the same thing in listening. Practice exercises may include checking omissions, and the rearranging of events in retelling a story heard or read, arranging in proper order events which have been listed in a wrong order, and completing an unfinished story which has been interrupted at a critical point. Supervised class discussion should show pupils how successful they are in doing this.

Apprehension of details

Proficiency in reading certain types of study materials requires apprehension and assimilation of all relevant details. This demands relatively slow, analytical progress and at times some rereading for fuller understanding. The goal, however, is not to remember isolated bits of information, which is what happens too frequently in teaching this exacting form of reading. The aim is to apprehend *relevant* details, with a full understanding of their relation to each other and to the main idea in the total pattern of the paragraph, article, or problem. Elementary school children are characteristically inaccurate in this type of reading.

Although rereading is frequently necessary for full apprehension of details and their implications, instruction should aim at grasping as many of these as possible in a single reading. A common

fault in dealing with study-type reading is to go too fast. This is particularly common with children accustomed to reading for the main idea. They have not acquired the versatility that leads them to change their pace to fit specific reading purposes and materials. More of the relevant details are apt to be apprehended when the reading purpose is clear and motivation is strong. For example, a boy who would like a bicycle will readily take in an article giving details of bicycle construction.

Many study-type materials should be read with precision, as in certain parts of history, geography, and science. Also, verbal arithmetical problems require precise accuracy in reading.

In exercises used to develop the skills of recall or recognition, the questions should be phrased to call for details related to the main idea. Furthermore, the work should be so arranged and supervised that through checking and discussion the errors are readily seen and improvement appreciated. The aim should be to develop motivation for increased precision and to inculcate an habitual attitude of striving for accuracy.

Following directions

An appreciable section of the reading of both children and adults is concerned with printed directions. Examples are directions for playing games, constructing models, making a cake, using a tool, carrying out a scientific experiment, and solving a mathematical problem, to mention only a few. Reading to follow directions is a relatively slow, painstaking process. All the pertinent details must be apprehended in a sequential order. Each step must be clearly understood and kept in its proper place in the sequence. It will be noted that reading to follow directions involves apprehension of details as discussed above.

Inability to follow printed directions is common among both children and adults. This is undoubtedly due to lack of appropriate experience and proper guidance in this kind of reading. Many of the difficulties encountered in science and mathematics may be traced to reading deficiencies of this kind.

Training in reading to follow directions produces the best results when an activity is involved in which the child has a

definite interest. A wide variety of material is readily available in craft books, pamphlets, and magazines as well as in books and pamphlets on sewing, gardening, and cooking. The teacher can readily organize numerous situations for developing skill in reading to follow directions: instructions for conducting scientific experiments, and for constructing various items. She should be sure that the pupils clearly understand each step, and that the steps are kept in proper sequence. Checking the end product, as in a construction or sewing job, ordinarily will reveal to both pupil and teacher whether the directions were properly read and followed. *Activities found in workbooks furnish practice in reading to follow directions.* Because of their simplicity they are useful only during the early stages of training.

Generalizing or drawing conclusions

Certain comprehension skills require greater emphasis upon thoughtful reading or thinking along with and beyond what is given in the printed material. One phase of such reading is concerned with generalizing or drawing conclusions.

In reading to generalize or to draw a conclusion, the pupil exercises judgment in selecting and relating relevant facts found in one or more articles. This is done in such a way that the combined product points to, or indicates a general rule, a proposition, an inference or a generalization. This product may be stated in the form of a conclusion.

Reading to generalize is purposeful reading in which the purpose is frequently set by a question that calls for an inference. Examples: (1) Why is there snow on the tops of some mountains in the summer time? (2) Why does the eating of fruit help to keep one healthy? (3) Why are there many cities located on the Mississippi river? To answer any one of these questions from reading requires the selection and relating of relevant information. Children should be taught that the first statement of a generalization is a tentative inference. This tentative inference is to be evaluated for adequacy in terms of past experience, other reading, and discussion. Thus, in addition to exercising judgment in selecting appropriate information and drawing conclusions, it is neces-

sary to test the conclusions reached. Both the generalizing and testing of conclusions require further thinking.

Children tend to generalize readily. However, much of their generalizing is in error due to incomplete evidence and inaccurate thinking. Nevertheless, generalizing must be encouraged. The teacher, however, should guide the children to improve their skill in selecting relevant information and in evaluating the conclusions they form. In many instances the discussion of a conclusion may reveal the need for further reading to gain sufficient information to justify the tentatively formed conclusion.

Critical evaluation

In many situations, reading calls for critical evaluation of what is read. For instance, the judgment needed in selecting appropriate data for generalizing involves critical evaluation. This skill, as Gans (53) has shown, tends to be poorly developed even among the more able children. In demonstrating this she had measured the ability to discriminate whether a sentence or paragraph contained information relevant to a given question or topic.

As children engage in wide reading in quest of information on a specific topic, they will encounter conflicting views in different places. Reconciliation of such views demands critical evaluation. Contradictions may be found not only in newspaper and magazine articles but also in the presentation and interpretation of more scientific material. Critical evaluation may be in terms of such factors as an author's or publisher's prestige, the detection of his bias, or the out-of-dateness of a publication. For instance the background of a newspaper writer or the general policy of a magazine may be such as to lead to prejudiced statements. And the more recent of two informative articles on the same subject may make more facts, or better supported ones available to the child.

In all critical evaluation the reader should make use of his whole background of experience. This drawing upon accumulated information will frequently make it possible to evaluate whether the new material seems plausible, is only partially correct, or appears biased. Conflict of the new with past experience may also

lead to modification of the reader's earlier views. His earlier conclusions may have been based upon incomplete evidence. Supervised class discussion is very helpful in evaluating conflicting statements and views.

It is highly desirable that children learn to detect propaganda and to evaluate it critically. Propaganda, or systematic efforts to spread opinions or beliefs, is prevalent in many forms, good and bad. It is found in advertisements, speeches, and in many printed materials. Learning to detect and to evaluate propaganda is not easy. Nevertheless, children can be taught to recognize some of the more obvious propaganda techniques such as biased testimonials, name calling, and the frequently employed methods of associating views with "prestige" individuals and institutions. Furthermore, in our present society the attitude of questioning and sometimes becoming suspicious of appealing generalities unsupported by factual evidence should be cultivated. The more subservient one is to parent and teacher authority, the more receptive he is apt to become to propaganda. Although the satisfactory adjustment of the individual requires a proper recognition of authority and of the values of ripe experience, there should be a balance between this and independence in thinking. Neither slave-like submission nor complete rejection of authority is healthy. Children who learn to think for themselves by investigating or by demanding supporting evidence before making a judgment are more apt to resist insidious forms of propaganda.

Comprehension skills: general considerations

Few children acquire an adequate mastery of all the skills involved in comprehension without systematic training. The program of instruction should be started early and continued throughout the grades. In this program, the simpler comprehension skills come first, followed by the more complex ones. Development of any comprehension skill is a gradual process. In fact some of these skills may not be perfected until high-school or college levels. Although a sequential program for comprehension skills has not been established, progress in the teaching program should be in terms of providing readiness for what is coming next. Thus,

each new level of difficulty is undertaken after adequate mastery of what comes before.

Satisfactory comprehension requires flexibility in reading. In addition to proficiency in a given skill, the child must be able to choose the skill or skills appropriate to achieve a particular purpose.

Programs and materials for developing comprehension skills are outlined by such authors as Gates (63), Durrell (46), Harris (91), and McKee (126). The plan to be followed in a particular school, however, will to a large extent be organized by the teacher. She will necessarily take into account the basic principles involved in each skill. Furthermore, she can profit from the lists of materials and outlines of programs cited in texts.

Summary

The development of comprehension is fundamental in all reading instruction. As a child masters the mechanics of reading, his reading comprehension should become more nearly equivalent to his listening comprehension. With further progress in proficiency, reading comprehension tends to equal or exceed auditory comprehension. The amount of material comprehended as a unit, degree of comprehension, and rate of comprehension vary from child to child. The versatility which is the ability to adapt procedures to the requirements of comprehension in specific reading situations indicates proficient reading. In addition to understanding word meanings, the child must learn to comprehend sentences, paragraphs, and larger units. The relating of reading activities to experience furnishes an important aid to comprehension at all grade levels. In addition there should be systematic teaching of the comprehension skills. These include skimming, apprehending the main idea, following and predicting the sequence of ideas, apprehension of details, following directions, generalizing or drawing conclusions, and critical evaluation. The program of instruction begins with the simpler comprehension skills and progresses to the more complex. The development of any comprehension skill is a gradual process.

Selected References

- BOND, Guy L., and WAGNER, Eva B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chap. 15.
- DURRELL, Donald D., Development of comprehension and interpretation, *Reading in the elementary school*, Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, chap. 9.
- GATES, Arthur I., *The improvement of reading*, 3rd ed. New York: The Macmillan Company, 1947, chap. 12.
- HARRIS, Albert J., *How to increase reading ability*, 2nd ed. New York: Longmans, Green & Company, 1947, chap. 12.
- McKEE, Paul, *The teaching of reading in the elementary school*. Boston: Houghton Mifflin Company, 1948, chaps. 13, 14, 15.

CHAPTER XI

Adjusting Instruction to Individual Differences

The organization of instruction to provide adjustment to the individual differences in her class is in many respects the major problem of the elementary school teacher. It is a problem ever present at all grade levels. At the beginning of the first grade there is an identifiable and measurable wide range among children in every ability or trait related to preparation for reading and capacity to learn to read. As a result, different children are bound to acquire reading proficiency at different rates. What is more, individual differences in reading ability tend to increase as children grow older. The fast-learning child gets further ahead and the slow-learning child drops further behind the average child as their schooling continues.

The teacher can neither eliminate these differences nor bring all children up to a given standard of performance. In fact, all authorities would agree that differences in reading ability should be cultivated so that each child can achieve to the extent of his learning capacity and at his optimal rate. The teacher should face the problem of individual differences realistically by recognizing the situation and by adjusting her teaching accordingly. To a large degree the success of any teacher of reading depends upon her ability to provide for individual differences through adjustment of materials and instructional guidance to pupil ability and needs. Skillful teaching of reading, therefore, implies a positive attitude toward individual differences in which instruction will seize upon and cultivate these differences.

Differences in Reading Ability

Every teacher has a general awareness of the differences among her pupils in abilities related to learning to read, in reading performance, in attitudes toward reading, and in reading tastes. She is not immediately aware, however, of the precise nature and extent of these differences. This knowledge is attained only by systematic surveys and by study of the children. This involves use of standardized reading readiness tests, reading achievement tests, and intelligence tests in addition to observation and rating of the children on attitudes related to reading performance and on personality traits.

At the beginning of the first grade wide individual differences are found in background of experience, mental age, social adjustment, language facility, and all other traits concerned with readiness for reading. For these reasons children will be ready to begin learning to read at various intervals after they start *grade one*. Furthermore, as already stated, they will progress in reading proficiency at different rates. At succeeding grade levels, therefore, one may expect to find a greater and greater range of reading abilities. At any grade level beyond the first grade it is customary to find a range of abilities spanning at least four grades. By the end of grade three this range ordinarily extends from about second- to eighth-grade ability, and by the sixth grade, from fourth- to eleventh-grade ability. Occasionally the teacher will find a child whose reading ability is even below or above the limits given here.

Any one child usually possesses a variable pattern of reading abilities. It is customary to designate the reading-grade level of a child in terms of an average derived from scores on several tests. For instance, suppose a pupil's reading grade turns out to be 3.4 when all aspects of his reading are combined. As a matter of fact, no one of his scores may be at 3.4. He may be relatively good in vocabulary knowledge but poor in paragraph comprehension; good in comprehending details but poor in grasping the general meaning; good in word recognition skills but poor in conciseness of word meanings; a good silent reader but a poor

oral reader; and so on. In short, in the case of any one child, the pattern of reading abilities may be quite uneven.

Satisfactory adjustment of instruction to such individual differences, therefore, requires not only determination of average reading grade, but also an analysis of individual strengths and weaknesses. From such facts the broader outlines of the instructional task of reading now become clear. Any attempt to force all children into some single standard of achievement will be avoided. At any grade level provision will be made as far as possible for the variation in ability present, taking into account the needs of each pupil. To provide for individual differences the teacher will take pains to find out what the differences are.

Russell (146) has outlined some of the more important abilities in which children differ as they begin school and continue on through the grades. At the beginning of grade one children differ in all those abilities related to initial reading success. These include background of experience, verbal concepts and facility, ability to participate in group activities, social adjustment, visual and auditory discrimination, learning ability or intelligence, physical status, and attitudes toward books and toward learning to read. These factors are all relevant to the reading readiness pattern and have been discussed in detail in Chapters II, III, and IV.

As the children progress through the three primary grades, many of these differences persist to a degree that requires adjustment in instruction. At the same time new differences which should be detected and adjusted to will begin to appear. These may include differences in achieving satisfactory left-to-right orientation in reading, phrasing in oral reading, working independently, sight vocabulary, use of word identification and recognition techniques, development of meaning vocabulary, sentence and paragraph comprehension, and reading for such purposes as general impression, details, and following sequences of ideas.

Near the end of the primary grades and especially during the intermediate grades additional differences associated with more mature reading will appear. Some of these which the teacher will need to take into account are rate of comprehension, breadth and level of comprehension, skimming, reading to formulate a

conclusion, reading for critical evaluation, reading interests and tastes, flexibility in adjusting to materials and purposes, and various skills required in work-type reading and study such as finding and using sources of information.

The first step in adjusting instruction to individual differences is to become aware of the amounts of such differences as are present and to organize instruction in relation to them. The more capable pupils will progress rapidly with a minimum of guidance. Slow learners, however, will acquire reading skills slowly and will profit by much direct help. Although individualizing instruction is a complicated and difficult task, the well trained and conscientious teacher in any school system can achieve a degree of success which is gratifying. For instance, Dunklin (44) has demonstrated that most failures in first-grade reading may be prevented by means of adjusted instruction.

Causes of Individual Differences in Reading

The rate of progress in learning to read is ordinarily conditioned by a pattern of the inter-related factors we have been talking about, and to determine the relative importance of any single factor in the pattern is a difficult matter. Diagnosis of a child's strengths and weaknesses and the corresponding adjustment of instruction, therefore, should be tentative and flexible, requiring frequent re-evaluation and, wherever and whenever indicated, modification of teaching procedures.

Variation in reading readiness factors produce individual differences in reading ability. These factors have been considered in earlier chapters.

Retardation in reading or reading disability characterizes one end of the distribution curve of differences in reading ability. Any factor or pattern of factors which cause reading disability must be listed among the determinants of individual differences in reading proficiency. These will be considered in the next chapter. Here it is sufficient to state that as soon as a child is in trouble, his difficulty should be diagnosed and remedial measures brought into play. In remedial reading as elsewhere good teaching consists of

teaching in which there is a proper recognition of individual needs.

When the teacher has evaluated the strengths and weaknesses of a child in relation to readiness for reading and in relation to reading abilities and disabilities, she will have accounted for the major factors determining individual differences in reading. Practically never will two individual patterns of abilities be identical. As suggested earlier, it is desirable to accumulate information on each child in a folder or some other kind of file. It must be strongly emphasized that individual differences in reading are caused by an inter-related pattern of factors rather than by any single one.

Providing for Individual Differences

Standardized tests, informal inventories and other devices described in Chapters XVII and XVIII are employed to get quantitative measures and other appraisals of individual abilities and needs. The proficiency profile or pattern of achievement derived from these tests and observations indicates the strengths and weaknesses of the individual. These supply the basic information for adjusting instruction to meet his needs.

Methods of providing for individual differences may be concerned largely with instructional organization or with variation in teaching techniques and materials, or both. Several of the more frequently recommended or used procedures will be considered below.

Remedial reading

Remedial reading in the classroom will be considered in some detail in the next chapter. At this place, discussion will be confined to a few remarks on the principles involved. In the extreme theoretical sense one might say that if the reading program were sufficiently individualized from the beginning of instruction there should be relatively little need for remedial teaching. In practice things work out differently. There are at least two reasons for this. In the first place, a goodly portion of the individualization program depends upon discovering and correcting difficulties *just*

as soon as they appear. Even in any well organized instructional program, it is not surprising that one child or another will on occasion fail to satisfactorily master a specific skill, such as use of context for word recognition. With frequent appraisals of the progress to be hoped for as the result of good instruction, any such difficulty will be promptly noted. Analysis indicates the nature of the difficulty and the procedure necessary to remedy it. In the ideal case, then, when the difficulty is noted promptly, it can usually be readily corrected by individualized attention. Troubles when they come, consequently, are due to one or another of the hundred factors which make it impossible to achieve this ideal.

A second reason why individualization of the reading program cannot eliminate all remedial work is that now and then a child is in such serious difficulty that he fails to make the expected progress in reading even when exposed to the best efforts of his teacher. The difficulty may be too complicated or deep-seated for the classroom teacher to handle. In such cases, the child requires the services of a specialist.

Diagnostic and remedial reading, therefore, is a legitimate aspect of adjusting reading instruction to individual differences. It is in fact one of the more important ways of taking care of individual needs as they arise. When the remedial program is viewed in this way, it provides a unique opportunity for individualizing instruction. When well organized and executed, such a program will prevent severe reading retardation in all but a few special cases.

Reading readiness

As noted earlier, the developmental reading program is one in which the principles of reading readiness are incorporated at all levels of instruction throughout the grades. Each new step in reading is built on what comes before. In addition, the teacher organizes the preparation for each specific reading task so that the reading purpose is definite and so that the concepts involved will be clearly comprehended. Then she makes certain that each pupil has at his command the specific skills necessary for the

reading assignment. This is just as important in the succeeding grades as in the first grade.

Promotion policies

Certain promotion policies have been adopted in order to cope with differences in learning ability. It has become a rather common practice to accelerate facile learners by letting them skip a grade while the slow learners are held back to repeat a grade. In the early grades to a large degree this means acceleration or promotion in terms of reading proficiency. Another practice followed by some schools is to eliminate all grade divisions in the three primary school years. This avoids the frustration of early failure and permits a more flexible grouping throughout the primary years. But, as pointed out by Bond and Handlan (15) this merely postpones rather than solves tackling the question whether a pupil should be accelerated or retarded. Eventually the problem of promotion to grade four or remaining longer in the primary grades must be met.

Contrary to certain assumptions, acceleration or retardation of pupils on the basis of reading proficiency does not make the pupil's adjustment to learning nor the teacher's instructional job any easier. In fact, in both acceleration and retardation, the emotional adjustments of the pupil, as well as the instructional tasks that confront the teacher, may become more difficult. Bond and Handlan rightly insist that, irrespective of the grade location of a child, instruction must be adjusted to his needs. One cannot expect every child automatically to fit satisfactorily into any preconceived notion of what children at a specific grade must do. Cook (31) emphasizes that the crucial issue with regard to achievement and personality development of the pupil is how adequately his needs are met wherever he is placed. No promotion practice really comes to grips with this vital problem of educational and personality adjustment. Any general promotion policy by itself, therefore, cannot insure adequate adjustment to individual difference.

Grouping

The dividing of a class into groups is an administrative device employed for reading as well as for other kinds of instruction. The principal aim of grouping for reading should be to produce a situation which facilitates the adjustment of instruction to individual differences.

There is no one best method of grouping pupils for reading instruction. *Needs vary from class to class and from time to time in the same class.* It is obvious, as shown by Betts (7) and by Harris (91), that opinions differ considerably concerning the basis on which grouping should be made. Besides the competence of the teacher and availability of materials, it is necessary to consider the range of ability and age within the class, the experience and interest of the children, specific needs of the children, and the amount of experience the children have had in working together. Furthermore, although grouping has some advantages over mass instruction when reading materials are limited, best results are achieved only when the materials are ample, their level of difficulty appropriate and the variety of subject matter great. In general, little advantage is gained by grouping unless both *reading materials and teaching methods are varied to adjust to the strengths and weaknesses of the pupils in each group.* The classroom supply of sets of readers and other books should, of course, be supplemented by assorted books from the school library. Finally, children with limited experience in group coöperation must learn to work together. The rate at which this is learned depends largely upon the leadership and instructional skill of the teacher.

The reading proficiency of the children is one of the primary factors employed as a basis for grouping. Rather wide variation may be expected in any class. Scores on reading tests are useful for preliminary orientation in choosing the groups. In addition, the size of the burden imposed by the given vocabulary load which is used in the instruction of a particular group is important. Betts (8) suggests that in any reading group, the child with lowest reading ability should encounter no more than one new

word in 20 running words. The best reader in the same group may meet as few as one new word in 80 to 100 successive words. This is considered a reasonable working range for the pupils in a single group.

Factors other than reading ability must be reckoned with as *bases for grouping*. *Level of maturity in terms of growth, experience* and interest patterns must also be considered. These patterns are determined largely by background of experience, mental ability, and chronological age. Motivation is stimulated by organization of the group instruction so that it awakens interests. Group unity is encouraged when each child is contributing something while working on a unit in which the whole group is absorbed. Consideration of interest patterns does not mean a different course of study for each group. Such an isolation of the group is avoided when the class as a whole works on a common unit. When this is done, the different groups can work on various aspects of the same problem and the results coördinated. Class unity is maintained in this manner, for each group will realize that it is contributing toward a coöperative enterprise even though methods and materials vary from group to group. A further aid to class unity is to bring the whole class together during certain activities. This is possible when for the first time attention is being called to a new book or during the free reading period.

Another basis for grouping is in terms of the specific needs of the children. These needs may involve such things as clarification of word meanings, word recognition skills, encouragement of wide supplementary reading, critical reading, paragraph comprehension, and social adjustment.

Flexibility is Essential. Even with the best grouping possible, the needs of the children in a group will not be identical. Although grouping brings greater homogeneity in some respects, there will still remain variation of needs within the group and these must be adjusted to. This means flexibility of instructional methods and materials within a single group. Although it is advisable at times for a child to be a member of more than one group for different aspects of instruction, it will always be neces-

this inter-classroom grouping revealed that it is not a superior method for adjusting to individual differences.

Unwise Practices. Bond and Handlan (15) have outlined a number of unwise procedures that should be avoided in group instruction. Among these are the following: (1) Unfortunately contrasted attitudes of the teacher toward high and low groups. Seating pupils in the classroom by groups, which results in tendencies to develop smugness and undue feelings of superiority in the high groups and discouragement and feelings of inferiority among the lower groups. (2) Maintenance of fixed and inflexible groupings for a full term, which prevents shifting those pupils who would profit more in another group. (3) Failure to individualize instruction *within* a group. (4) Setting up a different course of study for each group so that the class as a whole never consider problems in common. (5) Procedures which assign each group a *different* task to be done with the *same* materials. (6) The practice of having the children in all groups do exactly the *same* thing with different selections after these selections have been chosen as appropriate to the abilities of the groups.

Special Problems. Special classroom techniques are needed for adjusting instruction to individual differences arising from speech defects, poor hearing and vision, retarded readers, slow learners, and very rapid learners. Some of these matters have been considered earlier. Others will be dealt with in the next chapter. Betts (8) notes that in many school systems, special services outside the regular classroom are provided for teaching certain mental and physical deviates. Reading instruction for the mentally retarded is adjusted to their immediate and vocational needs. Kirk (106) has presented a well organized program for teaching reading to slow-learning children. Sight saving classes are provided for those with severely limited vision.

Use of experience units

Experience units have their important use in individualization of reading instruction in the elementary school. Various descriptions of such units are available. For instance, teachers at the University of Minnesota Elementary Demonstration School have

presented in two volumes (182, 183) helpful series of illustrative teaching units for use throughout the grades. Adherence to the principles of reading readiness, however, requires that no child be presented with a reading task for which he is not prepared. Whether working with the whole class or with groups, unit organization permits the teacher to differentiate materials and assignments according to interests, abilities, and needs. Though such experience units find an appropriate place in the differentiated reading program, not all reading instruction can be in terms of these units. Better teaching results when they supplement rather than take the place of other forms of instruction.

Summary

In any reading program there should be provision for adapting instruction to individual differences. To make this adjustment it is necessary to know how pupils differ and this requires evaluation of the strengths and weaknesses of each and every pupil in a class. *It is even desirable to note the day-to-day progress of each child in reading proficiency.*

The program of individualized instruction involves a coördinated pattern of those procedures which have been found to be efficient and sound. Grouping, based largely upon pupil's abilities, experiences, and needs, is one of the instructional devices employed to facilitate this instruction. Adjustment of instruction is also facilitated by a large supply of varied materials of appropriate levels of difficulty. In addition to grouping, assignments and instruction should be differentiated to take care of individual needs within each group. When grouping is used, the instructional program should be so organized that occasionally members of the whole class may participate as one group. Progress in learning becomes more rapid when the children are prepared for each specific reading task. In the day-to-day program, it is desirable to diagnose difficulties promptly and then carry out the indicated remedial measures. A balanced program includes an ample amount of recreational reading. Topical units may be employed to advantage at all grade levels. Flexibility of both organization and instructional

procedures is essential to achieve best results. Throughout, there should be emphasis upon providing purposeful reading and good motivation. Concentrating on one or two of the commonly recognized procedures employed in individualizing instruction will not suffice. Best results are usually obtained from a coordinated pattern of instruction which includes several procedures.

Selected References

- BETTS, Emmett A., Adjusting instruction to individual needs, *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, chap. 13.
- BOND, G. L., and HANDLAN, B., *Adapting instruction in reading to individual differences*. Minneapolis: University of Minnesota Press, 1948.
- DURRELL, Donald D., *Improvement of basic reading abilities*. Yonkers, N. Y.: World Book Company, 1940, chaps. 2, 3, 4.
- HARRIS, Albert J., *How to increase reading ability*, 2nd ed. New York: Longmans, Green & Company, 1947, chap. 4.
- LAZAR, May, *Individualization of instruction in reading*. Educational Research Bulletin No. 1. New York: Board of Education of the City of New York, 1941.
- RUSSELL, David H., *Children learn to read*. Boston: Ginn and Company, 1949, chap. 15.



APPRAISAL OF ORAL READING

CHAPTER XII

Remedial Reading in the Classroom

In the well organized reading program which provides for adjustment to individual differences, there will be a natural emphasis upon the prevention of reading disability. If it were possible in day-to-day teaching to provide for each pupil's progress in terms of his capabilities, few occasions for remedial work would arise. Such an ideal state of affairs cannot be achieved yet. With the best of teaching one or another child may fail to learn some particular skill as it is taught so that corrective work will be necessary. And occasionally a child will be in serious difficulty.

Severe reading disability

When a child fails to respond to the best efforts of the teacher, a situation that may occur in any classroom, the origin of the difficulty may be complex. The causal factors may involve a physiological deficiency in hearing or vision, difficulties in emotional and personal adjustment, or the child may have been instructed by teaching techniques not suited to him. Ordinarily a pattern of factors, rather than a single cause is involved. The disability may have progressed far before the teacher recognizes how serious the condition is. Obviously the classroom teacher is not able to deal successfully with the more extreme cases. They should be referred to a specialist in remedial reading who is equipped by training and experience to handle such cases and who will diagnose the difficulty and carry out the indicated remedial work. In certain cases a complete diagnosis may be reached only after

special physical or psychiatric examinations. In addition to the analysis of the child's handicaps in reading, the diagnosis includes the essential facts concerning his or her physiological condition, emotional adjustment, mental capacity, interest patterns, educational history, and background of experience. The diagnosis will state the most probable sources of the reading difficulty. Then the remedial program, based upon his diagnosis, will ordinarily improve the child's reading. It should be continued until the child is able to handle adequately the regular classroom work with only the normal amount of individual attention. The duration of the remedial work may vary from a few months to a year or more with various children. Although remedial reading consists of the type of developmental tutelage found in any good classroom program, the instruction and materials are in greater measure adjusted to the needs of a particular child and he receives more of the teacher's individual attention. The child should emerge from a course of remedial teaching with the greater motivation that comes with successful performance.

To qualify for diagnosing relatively severe reading disability and to do remedial teaching requires special training and clinical practice. Its precise description is a subject outside the province of the present book. Here we need only emphasize that the classroom teacher will occasionally encounter a severe reading disability case. As soon as such a case is identified, or as soon as a reasonable length of time has elapsed during which a pupil fails to respond to the best efforts of the classroom teacher, she should refer the pupil to the appropriate specialist. For further discussion of severe reading disability see Gates (63), Durrell (46), and Harris (91).

Minor reading difficulties

In any reading program, a pupil may, and ordinarily does encounter minor difficulties such as deficiencies in word meanings or *some inability to master the use of phonetics as an aid to word recognition*. Bond and Handlan (15) state that the detection and correction of such difficulties should be an essential part of individualized instruction in reading. As a matter of fact, teachers are rather consistently doing certain kinds of remedial instruction

and we shall therefore devote space here to those aspects of remedial reading which should be carried out in the classroom. In a class of 30 pupils, the number and variety of individual difficulties that arise during the teaching of reading over a school year are large.

Understanding the Child

A sound basis for diagnosing the difficulties which pupils have in reading can only be found when the teacher is thoroughly acquainted with their capacities, physiological handicaps, if any, and their personality traits and behavior patterns. During the first few weeks of a school year, the teacher should as far as possible collect, assemble, coördinate, and study all the information she has available on her pupils. Some of this information will be passed to her from the teacher of the previous grade. Other materials will have to be collected by means of observation, inventories and standardized tests. From a comparison of scores on mental tests and reading tests, the degree to which reading ability corresponds to capacity in each child is ascertained. The school nurse's or a doctor's report on hearing and visual status will indicate whether special seating and instructional adjustments are necessary to prevent interference with progress in learning. Data concerning the social and emotional adjustment in the personality *pattern of the child are obtained from information on home conditions and from teacher observation of adjustment to the school, to class participation and to other pupils in work and play activities. Closely related to the personality structure are the behavior patterns arising from attitudes toward reading and toward the teacher as well as from the degree of self-confidence as expressed by individual responses and group participation. Observations of the child's interests, study habits, and work habits should be recorded.*

These data constitute the minimum information she should have about the pupil. From time to time the teacher will find occasion to add other relevant items. Acquaintance with a pupil's record is not only useful in adjusting instruction to the individual, but it also provides an excellent fund of information which will aid in

diagnosing and correcting the reading difficulties that arise from day to day and which the teacher should handle in the classroom. The fact that a teacher knows a child's capacities and his behavior and personality patterns will provide an *individual* slant to her diagnosis and corrective measures which are *more likely* to yield quick results than can be obtained with less complete information.

The above statement implies that a teacher through careful study of her pupils can come to know intimately their strengths and weaknesses, their behavior, interest, and personality patterns, along perhaps with other factors. Now the teacher, as a matter of fact, cannot find time for a thorough study of every child in her class each year. She can, however, realize the importance of the goal of a comprehensive understanding of the child. Furthermore, she can know some important facts about each child and, as opportunity occurs, extend her information. The more knowledge a teacher has about a given child, the more effective can be her diagnosis and correction of his difficulties. In any case, the teacher will ordinarily have accumulated enough material so that she has a fair background for understanding the major strengths and weaknesses of each child.

When to Do Remedial Work

Difficulties should be corrected as soon as they appear. Remedial work by the classroom teacher begins, therefore, soon after reading instruction is started in grade one and continues throughout the grades. The teacher's relatively frequent appraisal of pupil progress will reveal any lack of expected improvement. When in course of doing so, a difficulty is located, the reason for the deficiency is determined, and a technique for teaching what has not been learned is outlined and put into effect. Prompt detection of difficulties ordinarily makes their correction by remedial teaching relatively simple and easy. In most cases, all that is necessary is individual concentration for a short period on the specific needs of the child. In other words, group teaching becomes temporarily individual instruction until the child has achieved adequate mastery of the skill being taught.

Specific Difficulties

The child in difficulty is the one who is not progressing at the rate expected in terms of his capacity. If the class grouping is satisfactory, this means that the pupil is not keeping up with his group in learning a particular skill. A first step in diagnosis is to review the accumulated information about the pupil. This information on capacities and behavior patterns, as discussed above, will be helpful in both the diagnosis and in deciding upon the corrective procedures. With this basis, the teacher now searches for reasons why the child is not learning the specific skill that is being taught.

Within any class it is to be expected that there will be a wide range of proficiency in any aspect of reading and that there will be grouping for instruction. Where two or more pupils are deficient in a specific skill, as in some phase of word recognition techniques, it is frequently desirable to form a special group for appropriate remedial instruction. When this is done, there is still need for adjusting instruction to the individual needs of pupils in this special group. In fact it is likely that part of this instruction will have to be individual teaching of a single pupil. Except for the instruction to remedy a specific deficiency, the pupils participate in the activities of the group to which they are regularly assigned.

After discovering that a child is in difficulty, therefore, prompt *diagnosis of the deficiency and plans for remedy are in order*. In addition to the observations of daily responses and teacher evaluation of progress noted above, the teacher may employ various aids in her diagnosis. These special aids are used to gather additional and more specific evidence concerning a difficulty tentatively inferred from the day-by-day evaluation of progress.

The basic sight vocabulary

The daily responses of the child may suggest lack of an adequate sight vocabulary. Status of sight vocabulary is readily checked by means of the Dolch basic list given in Chapter V. Children with second-grade reading *capacity* should know about half these words and those with *third grade capacity* should know practically all of them. When a child is found deficient, the words not known by the

child can be taught by games like those suggested by Dolch (40) or by other means which build up a sight vocabulary of service words occurring frequently in all reading.

Left-to-right orientation

A left-to-right progression of perception in reading words and sentences is essential in all reading. This must be learned. Occasionally a pupil will have difficulty in mastering this orientation during the course of regular classroom teaching. Gross difficulty in left-to-right progression along a line of print is readily diagnosed by direct observation of a pupil's eyes while he is trying to read. Lack of proper orientation of perceptual sequence in reading words results in errors of response due to observing letters in a reverse order or a partial reverse order. A full reversal is illustrated by reading *saw* for *was*, or *on* for *no*; a partial reversal by reading *won* for *own*. Sometimes a single letter is reversed as in reading *big* for *dig*. Any serious tendency toward reversals is readily diagnosed by recording the errors while the child reads aloud series of words, or sentences which include several words that produce other familiar words when wholly or partially reversed such as *now*, *was*, *no*, *dog*, *big*, *split*, and *who*. An indication that the child is directing his attention primarily to the ends of words is when errors of pronunciation tend to concentrate at the beginning of words while the ending is correct.

It is entirely normal for all children to make some reversals when learning to read. As the child progresses through the primary grades, reversals ordinarily become less frequent. Even in the upper elementary grades, an occasional reversal error is normal.

Corrective instruction for faulty left-to-right orientation consists of highly individualized application of the techniques described in Chapter IV. It involves an explanation of how words and lines are printed. Full, careful and detailed demonstration of how the teacher reads words and lines of print is given. It is helpful to slide the finger or a pointer along the word or line as she demonstrates. Much repetition is usually necessary. Left-to-right orientation may well receive additional emphasis as phonetic analysis is taught.

In general, difficulties of proper orientation do not constitute a major problem for the classroom teacher. As noted earlier, while teaching reading during the early primary grades, the teacher should frequently give direct as well as incidental training in left-to-right orientation in perceiving words and sequences of words in sentences. Only a few children will fail to "catch on" so that they need the individual attention classed as remedial instruction. Persistence of marked reversal tendencies by a child in an individualized program beyond the second grade would probably indicate a severe reading disability complicated by other factors. Referral to the remedial specialist would be indicated.

Word recognition

Lack of satisfactory progress in learning one or another of the word recognition skills is rather common. These skills involve use of picture, word-form and context clues, phonetic analysis, and the various aspects of structural analysis such as syllabification and identification of known word roots. Observation of a child's responses from day to day may indicate to the teacher that the child is not making desirable progress in learning to use a clue or a technique that is being taught. Some individual checking with the child will more clearly identify the source of the trouble and determine the seriousness of the difficulty.

Undoubtedly the most satisfactory method of diagnosing difficulties in word recognition techniques is from observation of oral reading by the child. Gray's *Oral Reading Paragraphs* (71) or material from a carefully graded series of readers may be used. The Gray paragraphs range from first-grade to high-school difficulty and are prepared to reveal tendencies to make specific kinds of errors. If the Gray paragraphs are not available, satisfactory results can be obtained by using selections of six to eight lines from each level of the graded readers. The child is started at an easy level and continues with succeeding levels until he makes one error in every six to seven words. The teacher takes down a complete record of errors as the child reads. As the child finishes reading each paragraph, the teacher takes notes on the characteristics of the reading performance, noting such items as too slow

or too fast reading, word-by-word reading without phrasing, failure to correct errors by use of meaning context, distinctness of enunciation, unwillingness to try or inability to adequately carry out phonetic analysis, indications of nervousness, and any other behavior which may seem of importance.

Analysis of the errors and observations on reading behavior will furnish ample data for diagnosing those word recognition difficulties that can be corrected by the classroom teacher. Furthermore, corrective measures are usually indicated by the analysis. Use of this information may be illustrated by a few examples. For details see Harris (91), Gates (63), or Betts (7).

When book material is read, failure to make use of picture context as an aid to correct word recognition may be noted. Frequently clues to the correct word are indicated by things or action represented in the accompanying picture. Failure to use such clues suggests need of some additional training in "reading" pictures.

Failure to employ satisfactorily the clues found in verbal context is frequently revealed either by refusal to hazard a "guess" at a word when its meaning is clearly indicated by the meaning of the rest of the sentence, or by giving a word that does not fit the context and then not seeing that it is an error. Elimination of the deficiency is achieved by individual training which directs the child's attention to contextual meanings and by encouragement to "guess" a word that makes sense.

Other errors may indicate an over-dependence on verbal context without simultaneously using word-form clues to check accuracy of the guess. The guessed word may fit the context but still be the wrong word. For instance, the correct word might be *brother* and the guess *boy*. Further training in attending to familiar word-forms and how the word-forms can be employed to check a guess is indicated (Chapter VIII).

Still other errors may indicate inadequate or inappropriate use of word-form clues. As noted earlier, word-form clues aid in word recognition when the child becomes familiar with the total configuration of printed words. A moderate amount of individual drill specifically directed toward attending to characteristic word-forms

ordinarily will correct this deficiency. Other errors may indicate too great a dependence on word-form alone so that different words with similar total form are confused, as *horse* and *house*, or *there* and *these*. If verbal context does not furnish the clue to correct recognition, it is frequently necessary to note more carefully the details or separate letters which make up the word. In correcting this difficulty, the drill to encourage more careful discrimination of letters in words should emphasize the proper left-to-right *sequence* or perception. Otherwise, an irregular examination of the word may lead to reversals. Occasionally a child will note some detail of a word and guess at the rest in terms of the general shape or configuration. The resulting errors may tend to occur at the beginning, at the end, in the middle, or in more than one place in the words. Corrective training for ineffective use of word-form in recognizing words consists of guidance in how to discover the distinctive parts (tall and short letters, ascenders and descenders, wide and narrow letters, shape of letters, length of word) and how these are combined into a characteristic total pattern which is unique for that word. Development of an habitual attitude of perceiving an accurate picture of the word-form is desirable. Care must be exercised in this guidance to emphasize the contribution of the essential features to the total configuration so that the result is clear perception of a total word-form and not of unrelated parts. Timely guidance in getting the child on the right track in the use of word-form clues is very important.

If, during the oral reading of the paragraphs, the child refuses to try sounding out the word, or employs an ineffective sounding procedure, lack of progress in mastering phonetics or structural analysis is probably the root of the trouble. Additional checking is necessary for diagnosis of specific aspects of the difficulty. Careful observation of procedure and recording of errors while the child attempts to sound out words met in reading aloud some additional material will reveal whether there are difficulties with initial and final consonants, other consonants and vowels, syllabification, the identification of compound forms, endings in inflected forms, root words, prefixes, suffixes, or other aspects of analysis. The child may employ overanalysis by breaking up a word into the

component sounds and then not be able to recombine them into a word whole. When the difficulty or difficulties in word recognition are diagnosed, corrective work involves individual guidance following procedures outlined in Chapter VIII.

Phrasing

Deficiencies in phrasing during oral reading are often associated with word recognition difficulties. Or the inadequate phrasing may be due either to the habit of word calling, a monotonous word-by-word type of reading, or to grouping wrong words due to a disregard of punctuation and thought units. Lack of proper comprehension may accompany word-by-word reading.

Phrasing inadequacies are readily detected in the day-to-day performance in oral reading. Some individual observation of the child's oral reading may be necessary to diagnose more exactly the nature of the difficulty. If there are word recognition difficulties, these should be corrected first. Word calling as a habit may occur in the absence of difficulties in recognition or may persist after these have been corrected.

In addition to group work, a child may need some individual attention to overcome imperfect phrasing. Ordinarily this calls for concentrated individual instruction using the customary methods of teaching phrasing rather than resorting to new methods. If this does not bring about progress the child's difficulty is severe enough for referral to the remedial specialist.

To develop phrasing skill, material which offers no difficulty in recognition should be employed. Attention is directed to meaningful thought units and the aid provided by punctuation. Demonstration should be given by the teacher. Aid in recognizing the proper phrases may be provided by separating them by short vertical lines or typing material with additional space between phrases. When progress is made by these aids, the pupil does the marking of the phrases in regular sentences and then is gradually led to do the phrasing without marking or other artificial aids. Details of these and other techniques for developing phrasing are given by Harris (91).

It might be noted that the child with over-dependence upon

context may manifest good phrasing but be inaccurate in his reading due to omission and addition of words. Correction here involves remedial work in word recognition techniques, slower reading, and greater attention to details.

Word meanings

Deficiencies in understanding the meaning of words necessarily results in lack of comprehension of what is being read. In addition to observation of daily performance in the reading situation, deficiencies in word meanings are checked by standardized tests and teacher-made tests (Chapters XVII and XVIII). When a child is deficient in word meanings, the first things to check are the data employed for determining what group the child belongs in, for example, intelligence, language development, experience background, and so on. The improvement of word meanings tends to be a rather extended program and naturally belongs in individualized group teaching. After re-evaluation to check whether the child is in the proper group, he is taught along with others who have a similar reading status. If he is deficient also in word recognition techniques, individual training as outlined above is given simultaneously with vocabulary instruction. The individualized program for development of a meaningful vocabulary, outlined in Chapter IX is followed. In the day-to-day instruction, the teacher will of course *develop the concepts needed to comprehend meanings of all new words introduced*. At the same time, the long-range program is carried on for development of word meanings by expanding the background of experience, training in the use of language, wide reading, use of the dictionary, and direct study of word meanings as previously outlined. *The general emphasis in this remedial work is development of the concepts needed for adequate comprehension of material to be read*. To a large degree this involves, therefore, an extension of the reading readiness program up through the grades with the customary adaptation to individual needs. In all this program, of course, stress is placed upon development of strong motivation.

Comprehension

Deficiencies in various aspects of comprehension are detected by observation of the child's daily responses in the reading situation plus scores on teacher-made and standardized tests. Failure to make satisfactory progress in quality and degree of comprehension introduces practically the same problems which come up when there are deficiencies in word meanings. It is dealt with in a similar manner (see above section). But deficiencies in sentence and paragraph comprehension as well as in the other comprehension skills such as skimming or apprehending the main idea are specific and require appropriate corrective training. Having discovered that a child is not making the expected progress in a specific comprehension skill such as comprehending sentences, or apprehending details, correction involves application of the procedures outlined in Chapter X with the degree of individual attention necessary to bring the child up to the level of achievement where he can make normal progress with group instruction.

Oral and silent reading

Detection and correction of deficiencies in oral and in silent reading involve the diagnosis and remedial work discussed in the previous sections of this chapter. It is true that such skills as clear enunciation and phrasing apply more specifically to oral reading, and that lip movements indicating tendencies to vocalization are undesirable in silent reading. In general, however, all the factors discussed such as deficiencies in word recognition techniques, word meanings, comprehension, and the rest are involved in both oral and silent reading. Correction of these difficulties accompanied by adequate emphasis upon purposeful, well motivated reading will be reflected by increased proficiency in both oral and silent reading.

Summary

There are certain general considerations which apply to all remedial work in the classroom. In the first place, it is neither necessary nor desirable that the classroom teacher become a

specialist in remedial reading. The rôle of the classroom teacher, with regard to remedial work, is to detect and correct promptly the relatively minor deficiencies that arise during the step-by-step progress in her program of instruction. During this program, certain pupils will fail to make the expected gain in using one or another of the *specific skills* being taught.

Ordinarily, observation of pupil responses during the day-by-day and week-by-week classes plus performance on the rather frequent teacher-made tests employed to check progress in the skills being taught will suggest the nature and degree of the difficulty. At times, some additional individual diagnosis is necessary for a clearer definition of the deficiency. This is followed by the corrective instruction indicated by the diagnosis. The difficulty, if promptly identified, is ordinarily cleared up rather promptly by individual instruction adjusted to the specific needs of the child. The only difference between such instruction and group instruction adapted to individual differences is that the teacher works temporarily with the pupil, employing the regular teaching methods but concentrating more intensely upon the skill wherein the child is deficient. In other words, the teacher while carrying out her program of adapting reading instruction to individual differences, will give a moderate amount of special corrective help to any child needing it.

Every classroom teacher, to be successful in teaching developmental reading, which necessarily involves adapting reading instruction to individual differences, must do remedial teaching of the kind described here. She is not required, however, to be equipped by training, facilities, or time to handle the more severe, deep-seated and complicated cases of reading disability. They should be referred to the remedial reading specialist.

If the reading program throughout the grades were organized so that difficulties with specific skills could be promptly detected and corrected, there would be fewer severe disability cases. Such a program, of course, would be one which put the emphasis on prevention of reading difficulties as a major objective in teaching reading throughout the grades.

Selected References

- ADAMS, Fay, GRAY, Lillian, and REESE, Dora, *Teaching children to read*. New York: The Ronald Press Company, 1949, chap. 13.
- BROOM, M. E. and others, *Effective reading instruction*. New York: McGraw-Hill Book Company, Inc., 1942. chap. 12.
- DOLCH, Edward W., *Problems in Reading*. Champaign, Ill.: The Garrard Press, 1948, chaps. 13-18.
- DURRELL, Donald D., *Improvement of basic reading abilities*. Yonkers, N. Y., World Book Company, 1940.
- GATES, Arthur I., *The improvement of reading*, 3rd ed. New York: The Macmillan Company, 1947.
- HARRIS, Albert J., *How to increase reading ability*, 2nd ed. New York: Longmans, Green & Company, 1947.
- KIRK, Samuel A., *Teaching reading to slow-learning children*. Boston: Houghton Mifflin Company, 1940.
- STONE, Clarence R., *Progress in primary reading*. St. Louis: Webster Publishing Co., chaps. 7, 12.



SOUTH OF THE BORDER

CHAPTER XIII

Growth in Reading in Grades Two and Three

To a large degree the reading instruction in grades two and three consists of an extension and amplification of the program begun in grade one. These levels constitute a period of rapid progress in acquiring fundamental reading habits. Organization of the reading program in the primary grades necessitates an inclusive view of all three years. There is throughout an emphasis upon preparation for reading, initial reading experiences, and the acquisition of the fundamental skills, techniques, and attitudes necessary for satisfactory progress in the developmental program. We should keep in mind that we are teaching primary reading rather than just teaching reading in grade one, or in grades two and three. What is begun in grade one is gradually expanded and refined in grades two and three. New techniques are introduced and the child begins to learn them at whatever time he is *ready* and just at the proper stage of development. There are no abrupt distinctions in progressing from one part of the program to the next. One stage merges gradually into the next in the developmental sequence. Then, in grade three near the end of the primary period, there will be conscious instructional preparation for the transition to the upper elementary grades where there is going to be extensive use of independent work-assignments as a way of teaching reading. This is only a special expression of the basic function of the primary grades which is to lay a sound foundation for all future reading.

The organization of instruction in primary reading is guided by certain specific goals to be attained by the learner by the end of the primary years, assuming that he has been able to make normal progress. These goals, discussed by various writers, have been especially well outlined by Hildreth (97). The consensus is represented in the following list:

1. Materials perceived in habitual left-to-right sequences.
2. Steady gains in sight vocabulary. In addition to his general sight vocabulary, the average child should have acquired practically all of the 220 service words in the Dolch basic list.
3. Considerable progress in mastery of word recognition skills.
4. Progress in acquiring a meaning vocabulary and in clarification of concepts.
5. Satisfactory comprehension in the reading of material appropriate to the child's capacity.
6. Progress in reading for a purpose. This involves increased proficiency in defining purposes and then setting out to achieve them through reading.
7. An appreciable beginning in the acquisition of specific comprehension skills which will receive added emphasis in the upper grades.
8. Use of reading to solve problems.
9. Growth of independence in choosing and using reading materials. This requires a growing acquaintance with sources of reading materials.
10. Enhanced appreciation of what books have to offer in terms of enjoyment and information. Increasing awareness of the values to be found in books and literature. Expanded recreational reading.
11. Development of positive attitudes toward books, and reading in general, *improvement of reading skills, and the habit of reading in order to learn and to find things out for oneself.*
12. Reading orally with understanding, confidence, adequate phrasing, and clear enunciation.
13. Ability to read silently more rapidly than orally.
14. Flexibility in choice and use of reading skills.

This chapter will deal mainly with the program and methods of reading instruction during the last two years of the primary period. It is the aim of reading instruction during these two years to bring about as far as possible the achievement of the goals listed above. Where there has been a beginning in grade one in acquiring a meaningful vocabulary, or mastering the techniques of word recognition, instruction provides for continued growth and

increasing proficiency along this line. New developments, as some of the specific comprehension skills, are introduced at the proper time with appropriate teaching procedures.

Organizing the Reading Program

At the beginning of the second grade, it is customary to find a range of about four grades in reading performance. Some children are just beginning to read; a few will have shot ahead to the normal fourth-grade level of reading. At the beginning of the third grade, the range is even greater. Between the two extremes pupils will be found scattered along at various stages of reading proficiency. Obviously proper instruction cannot consist of teaching just *second-grade* reading in grade two nor *third-grade* reading in grade three. It is both advisable and practical in each of these grades to group the children for instruction in reading. The same principles apply as before in adapting instruction to individual differences.

Group instruction and seatwork

The classroom organization must necessarily provide the proper amount of time for teaching each group. Ordinarily the grouping will be such that one group requires less time than another. Furthermore, teaching a small relatively homogeneous group using appropriately adjusted materials is much less time-consuming than teaching a large heterogeneous class. Although all groups must receive some guidance, the more able group will require less constant supervision than the others. It is advisable, therefore, to encourage a considerable amount of independent reading activity in the faster group and so free a larger portion of the teacher's time for teaching the slower moving groups. In any case, with two or more groups in the class, the work must be carefully organized to assure that learning will go on while pupils are engaged individually in their reading assignments called *seatwork*. Seatwork is also directed in the sense that it is a planned purposeful activity of educational value. But much of it is carried

out without immediate attention from the teacher. The criteria of worthwhile seatwork in grades two and three are the same as those outlined for grade one. Separate work books as well as those which accompany basic readers provide much valuable material. Other materials for seatwork are made up by the teacher and duplicated. A list of several types of seatwork exercises is given by McKee (126).

A common type of seatwork requires finding answers to questions related to the material that is to be read. After the child clearly understands the purpose of what he is to do, he should be free to read through the material without interruption. Questions on what has been read are then asked. On some occasions these should be questions which sample his thinking; on other occasions, questions to elicit details of information. Since the latter are easiest to make and to check, they are most commonly used. Dolch (40) leaves us in no doubt that thought questions are more beneficial to the child. Although the answers to them usually cannot be scored a simple right or wrong, they can stimulate vigorous discussion. Other types of seatwork correlate reading with simple art work, or develop skill in the use of word recognition clues, develop word meanings, clarify language structure, and in other ways promote comprehension skills.

Varied Reading Situations

As is grade one, a favorable classroom environment and a variety of reading situations continue to contribute to reading in grades two and three. Proper equipment and facilities, procedures which avoid fatigue, develop attentive behavior, and provide equal opportunity for successful pupil participation together with other factors discussed in Chapter V continue to develop interest in reading and promote progress in learning to read. Pupil participation in class activities as well as independence in experience units, in care and use of materials and in use of the classroom library are expanding. Motivation depends in no small degree upon the appropriateness and richness of these environmental conditions.

Class-made materials

In Chapter VI, it was suggested that during the initial stages of reading instruction and throughout the first grade, various materials besides books are occasionally useful. There should be continued use of these teacher- and pupil-made materials through the remaining two years of the primary grades. The materials are reproduced by the teacher and pupils in script-text or by means of a typewriter with primer-sized type. Some may be printed on the blackboard, placards or charts; others on paper in the form of news sheets, duplicated material, or homemade books.

These assorted materials, going beyond what is found in readers, and referring to current happenings, experience units, and other activities may take the form of notices, bulletins, information sheets, or little stories growing out of class experiences and discussions. As in grade one, these scripts furnish supplementary reading and an additional vocabulary as contrasted with the more standard basic materials for reading instruction. The children get desirable training in planning and carrying through unit projects by assembling pictures for the project, doing little illustrations or other forms of art work, making suggestions for labels and text sentences to go with the charts and stories, and performing whatever creative tasks are within their capabilities.

As emphasized by Hildreth (97), it is excellent procedure to maintain close tie-in between learning and living right through the primary grades. Reading, therefore, is advanced by continued use of unit experiences through grades two and three. These units provide strong motivation and a wealth of opportunities for reading, along with the learning of other language skills.

Printed materials

As the child progresses through the primary grades beyond grade one, there is need for an ever greater variety of printed materials. In addition to series of basic readers, there will be supplementary readers and workbooks dealing with health, science, social studies, and the like. Briefer printed materials include clip-

pings for posting and for scrapbooks, and pamphlets or single sheets dealing with such items as safety rules, health, and care of pets. As reading proficiency increases, library books, and children's magazines including certain better comics become increasingly important sources of reading material.

As in grade one, the teacher reads the children stories, poetry and simple instructive material. The children enjoy viewing the illustrations which accompany this literature.

According to Hildreth (97), most of the reading through the primary grades should be of the narrative type, for it tends to maintain interest and stimulate independent silent reading. She considers it best to avoid emphasizing any distinction between free reading and reading for information because what is recreational reading for one child may prove to be work-type reading for another. In general, children enjoy as recreational reading the stories in basic readers which touch on a wide variety of subjects.

Reading texts

Basic and supplementary readers provide the core material for reading instruction through grades two and three as they do in grade one. These may be counted on as the main source of context for systematic reading instruction, and for developing specific skills, in study-type activities or in recreational reading (97).

Good basic readers provide for a sequential program of instruction in which there is a systematically selected vocabulary and sufficient repetition of words. They also develop new techniques in appropriate patterns in order to avoid overemphasis on any single one. In other words, the pattern of reading instruction is incorporated skillfully in a sequential manner in the most modern basic series. This pattern may be relied upon to provide the essential foundations for all reading skills. Other materials, such as supplementary readers including content subject matter, classroom constructed materials, work books, books for recreational reading, reference books, and magazines, must be coördinated with the basal readers in such a way as to reinforce or emphasize, supplement and extend the sequential patterns in the basic series.

Skillful teacher guidance in the use of the various reading materials is required to insure coördination with the pattern of instruction outlined in the basic series.

Supplementary readers

Because there will be variation of reading ability in a class, different groups in either grade two or grade three will be working at different levels in the basic series. This means control of both vocabulary and concepts in the supplementary materials as well as in the basic series in order to fit the abilities of the particular pupils. The supplementary readers will provide materials in science, social science, arithmetic (number stories) and children's literature.

The introduction and development of specialized vocabulary and concepts are both gradual and built upon what has come before. Bond and Wagner (16) state that it is this *gradual* drawing away from more general reading during progress through the primary grades which provides growth in specific vocabularies, concepts, and experience. And this cultivates the ability to read in the content subjects which are so important in the higher grades. Along with specialization of subject matter occur changes in reading purpose (see below).

Provided there is skilled teacher guidance and choice of well-written materials, children's interest in reading content material is kept at a high level. The encouraging of this interest is the source of the desire to learn which harvests important returns during later years in terms of reading tastes, reading skills, and accumulated useful information.

Other reading materials for children

Ample provision of printed reading materials outside those found in the basic and supplementary texts is needed in the primary grades. With skillful teacher guidance, interest in recreational reading begins to develop during the first grade through exposure to books on the classroom library table or in the reading corner. During the second and third grades the enjoyment of free or recreational reading grows rapidly when opportunities, consisting

of supplies, time scheduled for free reading, and teacher encouragement, are favorable. Such a free reading program pays off. The desire to read builds up rapidly, and desirable attitudes toward reading become fixed, and besides these there are valuable gains in experience, vocabulary, concepts, and interests.

By the time the average child is well advanced into the second grade, he is ready for longer stories, those which take more time than is available on one day to finish. And by the end of the second grade the good reader will be ready and eager to read the longer story books.

There should be a library corner with reading tables in every classroom. The books available there should represent a wide range of difficulty so that they may be read with satisfaction by the slowest readers and at the same time present a challenge to the very proficient readers. In addition, the books should range widely in subject matter in order to appeal to many diverse interests. Books in the classroom library should be supplemented by materials from other sources such as the school library, the city or town library, as well as by materials brought in by the pupils. Children should be guided into becoming acquainted with the community library services. Besides the large variety of story books, the classroom library in these grades should include factual and scientific material presented in narrative form. While experience units are in progress, books and other appropriate source materials should be added temporarily to the classroom library.

Children need both encouragement and guidance from the teacher in their free reading, and the library corner should be made very attractive. Regular periods should be open for free or recreational reading. The teacher's recommendations should follow, if possible, the pupils' expressed interests and their reactions to books in order to stimulate whatever reading interests are expanding naturally. Ample time to browse, or to examine books in an unhurried manner will lead to more satisfying selections of the ones for prolonged reading. Pictures, display posters, discussion, and reading of excerpts are all incentives which stimulate interest and motivate free reading. Steering the child to a book at the right difficulty level is an important aspect of teacher

guidance. Children should not be required, however, to read what are considered children's "classics" unless they are ready to read the stories easily. Instead, the teacher might do better to read them aloud to the children. Guidance will be facilitated if the teacher keeps individual records of what the children read.

By the third-grade level, free reading, according to Hildreth (97), may be greatly stimulated by a book club. In addition to learning elementary library techniques, records of reading are kept, short reports given, oral reading of excerpts are carried out, and attention is directed to new books.

One function of teacher guidance is to find out what children get from their free reading. This can be done by teacher-pupil discussions and by reports. Often these reports need only be very brief, consisting of but a statement or two about a book, or a description of a self-selected incident that appealed particularly to some pupil.

Workbooks

The proper use of the better workbooks contributes much toward improving reading in the primary grades. Some workbooks accompany basic series; others are published separately. The well constructed workbooks have clear instructions and the arrangement of materials is such that they are almost self-teaching. Once an assignment is made, the child should not need further directions for some time. Since children work at different rates, it is advisable to have those finishing the workbook assignments early go to the library corner for recreational reading, or turn to other work that has been assigned.

Because the workbook belongs to the child, he takes pride in ownership. Ordinarily the child becomes fascinated by his workbook material and consequently loves to do work in it. All this produces strong motivation, aids individualization of the program, and tends to increase a pupil's self sufficiency.

Preference should be given to workbooks which are made to accompany the basic reader series. The exercises assigned are arranged to be meaningfully related to the parallel reading lessons. For example, new words are used just when they are introduced

in the reading lessons, or they give additional experience with materials recently encountered in the text reading. In this way, seatwork is applied to developing sight vocabulary, strengthening vocabulary by repetition, introducing new words, and checking word meanings and sentence comprehension. It is of course desirable that the use of workbooks fit into a variety of meaningful learnings rather than keep to merely mechanical repetitions. They should never be employed simply to keep a child occupied.

Introduction of content reading

In modern instructional programs there is strong emphasis upon reading to learn. During progress through the primary grades, and as children gradually make more intensive and extensive use of printed materials, they should begin to learn to study. Soon after children begin to use books, their teacher can lead them to appreciate the fact that everybody can gain information from books. By the end of the primary grades, pupils should have a clear understanding that books are most useful aids in finding out things. And by this time the child should have developed some skill in gaining little items of specific information for himself by systematic use of readers and printed materials of the work type.

Advance in reading to study will be very gradual during the first two grades. But by the third grade the child will be reading considerable informational material, particularly in relation to experience units and as he gets into elementary books on science and social studies. Along with this kind of reading there is increased specialization of purposes and searching through what is read in order to gain information on specific problems which come up either in a content subject or an experience unit. All this will introduce the child to special vocabularies and the concepts they embody. During the third grade, the organization of the reading program and guidance in study-type reading should develop by a natural transition into the reading of the intermediate grades where there is a rapidly stepped-up stress upon reading in the content fields. If this is done, the transition from the primary to the intermediate grades can be smoother and more

truly developmental in character. Fortunately more books providing informational materials and suitable in vocabulary and interest for third-grade children are becoming available. Thoughtful planning of programs and lessons in the third grade can give pupils a substantial foundation in reading, interpreting, and reporting factual data. This involves not only increased ability to read for details but also an increase in other comprehension skills (see below).

Hildreth (97) and Gray (74) have indicated methods that may be employed in using books for directed study assignments in the primary grades. As the pupils progress into the third grade, greater use is made of assignments dealing with information needed in current activities, experience units, or content studies. All such reading is guided by a definite purpose looking forward to study in the intermediate grades. Practice is included in finding answers to questions which arise naturally in developing an experience unit along with some early training in outlining, and some elementary ideas on how to summarize the information gained by reading. With a well organized primary reading program in which sufficient emphasis is given to development of study-type reading, there need be no severe break in the transition from third- to fourth-grade reading.

Continuing Growth in Fundamental Skills

When there is normal progress in grade one, the child has acquired a substantial foundation for continued growth in reading during the next two grades. We have listed at the beginning of this chapter the goals to be achieved by the end of the primary program. In addition to getting early foundations, the average child by the end of grade one will have made appreciable progress toward achieving certain of the listed goals. Among these are beginnings in the fundamental skills of word recognition techniques, meaning vocabulary with accompanying concepts, and comprehension skills. Continued growth in these skills during grades two and three require additional systematic training and practice. Skills already learned in some degree are improved and

broadened by supplementary steps at higher levels as well as by continued usage. New techniques are added at appropriate places as the teaching program unfolds.

Word recognition

During progress through grade one the average child will have made considerable progress in word recognition skill. In addition to acquiring a substantial number of sight words, he will have achieved some skill in the use of picture and verbal context, word-form clues, together with certain elementary aspects of phonetic and structural analysis. Progress in skill at recognizing words should be relatively more rapid during grades two and three because of the increased maturity of children both in mental status and reading proficiency. The sight vocabulary continues to expand. Teacher guidance plus practice improves or perfects those word recognition skills only partially learned in grade one. New techniques are introduced in proper sequence and according to pupil needs. By the end of the primary grades the average pupil should be well advanced in working out the pronunciation and meaning of the new words he meets in context. To aid him in this, he needs systematic practice under teacher guidance in identifying both new and partially known words in context. This practice should involve training in the flexible use of his developing skills, that is, choice and use of whatever is the most appropriate clue or skill or combination of clues and skills for unlocking the new word. It is best to ask for the least amount of analysis which will achieve the proper pronunciation of the new word.

Progress in learning to recognize words should follow a sequential program. In this program, the level at which the teaching of a specific recognition skill is introduced depends somewhat upon local school programs and methods of teacher training as well as upon the pupils' needs. In any case the systematic training in use of word form, picture context, and verbal context clues begun in the first grade is continued through the primary grades. Phonetic and structural elements taught in grade one are reviewed and more advanced elements in the program introduced. McKee (126) gives details of a program in word identification and recog-

nition in an outline, by grades, which may be helpful as a general guide to what may be expected from the average child as he progresses through each succeeding grade. Proper adjustment to individual needs makes it imperative to follow a sequential program. Essentially this is a developmental sequence in which success in each new step depends upon adequate mastery of what has come before.

Training in preparation for use of the dictionary has a place in the reading programs of grades two and three. In addition to learning the order of letters in the alphabet, pupils should have practice in grouping words according to initial letter, and in finding among groups of familiar words a particular word beginning with a specific letter. Use of picture dictionaries, both those constructed by pupils and commercial ones are valuable in this sort of training. Similarly, words that are learned and then printed on cards for review may be placed in alphabetical order in a file, a scrapbook, or put in order by the child in a dictionary notebook.

Vocabulary and concepts

The acquisition of concepts and of a meaning vocabulary go hand in hand, the latter being dependent upon the former. A vocabulary term is meaningful to the degree that concepts associated with it are clear, vivid, and precise. When the associated concepts are lacking, or when such concepts are vague, the vocabulary term will convey little or no meaning. To teach words divorced from concepts results in the bad habit of verbalism. Also, adequate comprehension and interpretation in reading depends upon the acquisition of a meaning vocabulary. Although learning to recognize words and learning to recognize the meanings of words are related skills, one can learn the pronunciation of a word without knowing its meaning at all. All teaching of vocabulary, therefore, should make sure that the words learned are in the first place meaningful.

In general, concepts which endow words with meanings are derived from either direct or vicarious experience,—first-hand experience or second-hand description of experience. Additional word meanings can be acquired almost indefinitely from wide and

extensive reading and from the thoughtful study of words. The details of building a meaning vocabulary are discussed in Chapter IX.

Vocabulary development which should also be sequential, must be adjusted to coördinate with the series of basic readers in use, with the particular school program and with the teacher's own reading program. As with any teaching, the developmental program in vocabulary building implies adjustment to individual differences.

According to Hildreth (97), rate of growth in word meanings is relatively rapid during progress through grades two and three, especially during the last half of the third year when skill in independent silent reading is expanding rapidly. To some degree this spurt in word comprehension reflects growth in the understanding and the more fluent use of speaking vocabulary in a variety of situations.

By the third year special difficulties will occur in the process of enlarging the child's vocabulary. Thorns of one type beset his path when he encounters the preliminary concepts and the special vocabularies of arithmetic and the contents of other semi-technical subjects. Sufficient attention and earnest effort are due the teaching of such new terms and concepts when need for them arises.

Another difficulty enters when the child must master variations in the meaning and even pronunciation of certain words according to the different contexts in which they occur, as: *tear, live, bat, draw*. At first, of course, the child learns one simple meaning for each word. But before he has finished the third grade, he will occasionally encounter other meanings. When this occurs, the teacher should as simply as possible point out the word and its variable meanings and guide the pupil to its proper interpretation in each context in which he encounters it. This will furnish some foundation for handling the more complex and rarer variation in meanings of words in later grades.

Comprehension skills

As the child progresses through grades two and three there should be a continuous development and expansion of his com-

prehension skills. Some of these have received attention in the first-grade program. To assure steady progress in proficiency throughout the primary years, the teacher should be ready to provide for individual needs with respect to breadth, degree, and rate of comprehension. And during the later primary years, the foundations for versatility in the use of reading skills should be laid.

As the child moves into the intermediate grades, satisfactory progress will depend upon relatively rapid expansion in all the aspects of comprehension. As noted above, this transition from third- to fourth-grade reading can be made less abrupt and less taxing to the degree that preparation for fourth-grade reading is laid in the primary grades. In the later primary years, therefore, particularly in the third grade, there should be guidance not only in sentence and paragraph comprehension, but also in the beginnings of systematic training in such basic comprehension skills as skimming, apprehending the main idea, following and predicting sequence of events, apprehension of details, comprehending directions, and generalizing.

To a large degree, later success in study-type reading depends upon skillful teaching of the content subjects in grade three. This involves incorporating systematic reading instruction into the content areas. A program for doing this is outlined by McKee (126). Such teaching necessarily imposes upon the teacher a heavy task. To avoid mere verbalism, concepts and word meanings must get *primary emphasis*. Also, the *organization of teaching units*, so highly desirable, will turn out to be an arduous task. Nevertheless, an ably executed program of reading in the content areas during grade three will yield gratifying returns in later reading performance.

Increasing Independence

By the end of the first grade the average child will have made some progress toward independence in reading. In addition to a supply of sight words, the pupil has gained some skill in using word recognition techniques. Concepts, word meanings, and comprehension have been broadened and developed through guided

experience units. Easy books are read for enjoyment. Group coöperation gains in effectiveness.

After satisfactory achievement in grade one, the progress through grades two and three will reveal continued and even striking growth of independence in reading. Development in word recognition skills, vocabulary knowledge, and comprehension skills together with first introduction to the study-type of reading, provide the foundation for the proficiency and versatility in reading that encourages development of independence. The child will read both for pleasure and for information, identifying many of the new words encountered and occasionally working out unaided the meaning of the less usual words he meets in context. There will be progress in learning ways and means of acquiring both books and information. Intelligent questions are raised, interpretation increases in accuracy, and reports on the material read improve. Interest in books and reading will have already reached a rather high level. In general, the degree of independence achieved by the end of the third grade can provide ever widening avenues of rewarding experience to the child.

Oral Reading

Oral reading plays an important rôle throughout the primary grades. Hildreth (97) states that approximately half of the reading time during most of these years is devoted to oral reading. In addition to being an instructional aid, properly conducted oral reading is an important form of communication, an interesting aspect of many group activities, and is enjoyable to both reader and listeners. It is important for its own sake. Furthermore, oral reading can contribute to personal appreciation of certain forms of literature such as poetry. Although good oral reading tends to promote better silent reading, that does not mean that it should be employed as a device to teach the latter.

In addition to the stress on accuracy and fluency of oral reading in grades two and three, there should be an attempt to teach the conveying of meanings and feelings to listeners. Because oral reading tends to be a natural form of expression and communica-

tion, the child should be taught to read aloud with understanding and in a conversational manner. In fact good use of spoken language promotes good oral reading. Conversely, reading aloud can further correct use of spoken language.

Oral reading which has a real, clearly understood purpose is likely to be well done and consequently more beneficial to both reader and audience. This holds true whether the purpose is to impart information such as reading an announcement, or reporting material which will form the basis for discussion, or whether the purpose is to share the reading of a book with others, or to serve as some other form of entertainment.

In general, oral reading should be confined to situations in which the reader has an audience. At first the child reads aloud relatively short passages such as a small section of a story, or the answer to a specific question. Such material should be read silently first as preparation for reading aloud. The child should be encouraged to do the latter in a conversational tone. It should fit naturally into the speech pattern of the class discussion or any story being told. Bond and Wagner (16) insist that initial oral reading should be attempted only after the child, through his practice, has gained ability to talk without embarrassment to a group. It is of great importance that the initial experiences of reading aloud be gratifying to the reader and enjoyed by the group. Gradually the child progresses to more pretentious interpretative oral reading in a more formal audience situation.

The teaching program should provide ample opportunity for each child to receive sufficient training in reading aloud. This training should provide for clear and pleasing enunciation, correct pronunciation, proper phrasing and good expression while the child reads with understanding and in a natural tone of voice. It is important that the audience hear clearly, understand, and enjoy what is read.

Successful training in oral reading requires considerable planning. The program should have variety. At times the oral reading may be limited to making announcements, explaining directions for a game, or giving some other bit of information. At other times a child will want to share a letter received or an interesting

episode from a book he is reading, or to present a book report or read aloud a story he has written. Parts in a little play or in a pretended radio program work well. Occasionally a child reads aloud longer selections for the class to enjoy.

Great care should be exercised in choosing material for oral rendition. Easy materials are essential. A child should never attempt to read aloud material which he does not understand. In addition, it is desirable that the story chosen should have a good plot and involve humor and surprise. Material containing much conversation is usually preferred. Of course, the material chosen should be interesting to the audience.

Any oral reading should be well prepared prior to presentation to the class. In addition to silent reading, this preparation frequently involves practice before the teacher alone. During this practice, attention is devoted to correct pronunciation, to improving such things as enunciation, phrasing, expression, and posture. There should be checks to assure understanding of what is read, for the child needs to comprehend meanings in order to communicate them to others. Insuring this comprehension is a way of avoiding undesirable overemphasis upon the mechanics of oral reading.

Many situations in and out of school require communication through oral reading of material. The adequacy of this kind of communication depends upon the excellence of the oral reading. It is obvious from even casual observation that a large proportion of people never acquires satisfactory skill in oral reading. It would seem, therefore, that schools should strive more than they do to achieve effective teaching of oral reading.

To require a child of poor reading ability or one ill prepared, to read orally before a group is likely to produce unfortunate emotional reactions. The consequent humiliation and frustration produce feelings of insecurity and thus adversely affect personal adjustment. On the other hand, well prepared, skillful reading aloud to groups promotes self-confidence and poise in social situations involving oral communication. As previously noted, there is desirable interaction between skillful use of spoken language and well executed oral reading.

Sight oral reading is much more difficult than prepared oral reading. Only when the child is a relatively mature silent reader and has acquired considerable skill in prepared oral reading should he undertake to read aloud at sight. Furthermore, because of the hazards of lapses in word recognition and comprehension, sight oral reading should be confined to relatively easy materials. In general, during the primary years, few children will be ready to undertake successfully reading aloud at sight.

A well organized and skillfully taught program of oral reading will yield good dividends. With increasing skill, the child gains poise and confidence; he acquires more adequate patterns of oral communication; he develops more effective silent reading, and he gains increased appreciation of certain literary forms.

Evaluation of Progress

As in grade one, appraisal of growth in reading proficiency in grades two and three requires frequent systematic checking of the child's achievements in mastering the skills he has been taught. In addition to observation of the pupils' daily performance in both oral and silent reading, the teacher can use self-made or published check tests and exercises, and standardized tests.

Changes in the behavior patterns of the child with regard to books and their uses also furnish evidence of growth in reading. These changes involve interest in reading, skill in use of supplementary books, independence in purposeful resort to books, and increase in the amount of voluntary recreational reading. Other pertinent factors include use of the library, poise and effectiveness in reading aloud, and generally improved attitudes toward all reading.

There should be a general summing up appraisal at the end of each year. This will include both a statement of status in reading skills and an evaluation of attitudes and behavior patterns in different reading situations. These appraisals are passed along to the next teacher for her guidance.

CHAPTER XIV

Reading in Grades Four, Five, and Six

The reading program in grades four through six becomes to a large degree an extension of the developmental program begun in the primary years. If progress has been normal during the earlier years, the child, by the time he reaches grade four, has acquired a large proportion of those basic abilities which are necessary for proficient reading. These constitute the foundation for the more specialized and complex skills required for reading at the higher levels. Beginning with grade four, children move into a period of ever increasing diversification of learning wherein reading is the essential tool. Reading to learn becomes an even more important feature than it was in the later primary grades. To an accelerating degree it becomes a means of achieving information and pleasure. The teaching of reading, therefore, cannot be pushed aside during these years. Its function is to push forward the perfecting of the basic reading abilities and to insure that the special reading skills needed for proficient reading in various new subjects and new materials of the work-type are acquired. The growing pupils also need guidance in the continuing development of their interests, attitudes, and tastes in recreational reading. In general, the reading program in these grades depends upon how much progress has been made during the primary years, upon emerging needs of the pupils, and upon the subject matters they are required to become familiar with. When there has been normal progress in the earlier grades, the consolidation of basic reading abilities and the extension of these skills in specialized



READING FOR INFORMATION

directions in the intermediate grades will proceed at a relatively rapid pace.

The Instructional Program

The kind of guidance which will broaden and extend the reading activities begun in the primary grades and will also stimulate the child to do the rich and meaningful reading which spells fundamental success in the intermediate grades resolves itself into a number of specific instructional jobs. The more important of these may be listed as follows:

1. *Basic Reading Instruction.* Basic series of readers supplemented with related matter provide the materials.

2. *Continuation of the Developmental Program.* The child advances to the higher levels of the program for developing word recognition, vocabulary, and comprehension in grades four to six.

3. *Study Skills.* These are needed in considerable variety to deal with all the work-type reading encountered.

4. *Reading in the Different Subject Fields.* New skills must be learned to develop proficiency in reading in such areas as geography, history, and mathematics.

5. *Oral Reading.* It is highly desirable to learn how to read well before an audience.

It is the purpose of the remainder of this chapter to deal with the first three of the above instructional tasks. The last two will be considered in the next chapter.

Basic Reading Instruction

The materials for this instruction consist of basic readers, associated supplementary readers, and workbooks. The use of these, together with other materials organized by the teacher, bring about further growth in the essential reading skills. As stated by Russell (146), such basic materials "should provide a well-rounded and balanced program of reading abilities which will be a firm foundation" for several types of reading encountered in the intermediate grades (p. 169). A truly basic series must fulfill

these specifications. This is achieved in certain recently published readers such as *Developmental Reading Series* by Bond, Alder, Curdy, and Wise (14).

There is not complete agreement among educators concerning the rôle of basic readers in the total pattern of developmental reading. In any given situation, the amount of stress placed upon the basic series must be related to what pupils need and the over-all organization of the particular school program (146). Experience reveals that most children in these grades seem to profit by instruction which leans upon a considerable use of the basic series.

Continuation of the Developmental Program

To prepare the children for the reading tasks encountered in the intermediate grades, the developmental program of instruction must be continued throughout these grades. When the child has finished the third grade, he will have progressed only partway through the sequence of steps outlined for the development of word recognition, vocabulary, and comprehension dealt with in Chapters VIII, IX, and X. Instruction which leads to the acquisition of these abilities and skills will provide the best assurance of satisfactory mastery of the subject matter requiring reading, not only in these grades but also in those to come. In the following paragraphs, attention will be directed to those aspects of the developmental program which are especially relevant to reading instruction in grades four, five, and six.

Word recognition

The training to develop skill in word recognition involves practice to perfect what has already been partially learned when the child has completed grade three and also to bring about the forward extension of this training to new elements and skills in the program. A major portion of instruction in structural analysis ordinarily takes place during the intermediate grades. Although some foundations for using a dictionary are laid in the primary grades, putting the dictionary to actual use to derive the pro-

nunciation, the spelling, and meaning of words is learned in the intermediate grades. Ordinarily, systematic teaching of how to employ the dictionary takes place near the end of the sequential program concerned with word recognition. Also in these grades, the child is taught to choose the appropriate combination of clues and techniques for recognizing promptly each word he encounters.

Vocabulary

Details of the program in vocabulary development are given in Chapter IX. New steps in the program are undertaken as new needs arise in the ever broadening program of reading in grades four to six. In these grades certain aspects of instruction characteristically occur to bring about an expansion of word meanings: (a) The skills needed to use glossaries and dictionaries for acquiring word meanings are taught. (b) So are those skills needed when more and more frequently occurring situations call for sensing variation in shades of meaning and for discerning the appropriate meaning of a word which has several meanings as *saw*, *watch*, *bear*. (c) Systematic instruction is provided to develop meanings for two important classes of words: abstract and technical terms. As the child in these grades expands his reading activities he will encounter more often such abstract words as *political*, *government*, *honesty*, and *decision*. Reading materials in arithmetic, history, geography, and science introduce numerous technical terms whose meanings are specific to the subject matter, as *quotient*, *governor*, *plateau*, and *gravity*.

Comprehension skills

Only the elementary aspects of the comprehension skills described in Chapter X will have been taught in the primary grades. In subsequent grades the program of instruction becomes broader and more intensive, in keeping with the greater demands on reading and the increased diversification of materials. Systematic training in these *basic comprehension skills throughout grades four, five, and six* is necessary if the average child is to attain a level of proficiency which will permit mature performance in reading activities beyond the elementary school.

Study Skills

As the pupil progresses in the reading of more diversified materials, he will need to acquire certain study skills having to do with locating information, interpreting tabular and graphic material, and organizing information into usable form. Such study skills, which supplement ordinary comprehension, are best learned through formal instruction rather than incidental learning, which may or may not occur as it should. Each aspect of the study skills should be taught at the time it is needed for finding and assembling information during the reading in content subjects, in an experience unit, or in other schoolwork. It is considered best to spread instruction in study skills over several grades. A beginning is usually made during grade three, but the more intensive and extensive instruction extends over grades four, five, and six. An outline of a suggested program, extending from grades three through six is given by McKee (126). A useful program of procedure in teaching how to locate information for an experience unit is given by Bond and Wagner (16). Four steps in doing this are outlined: (a) The teacher sizes up the material available to her, determines how this material is to be classified and indexed, and acquires any supplementary materials she needs from sources outside the school library. (b) Pupils and teacher then plan what is to be done. (c) This is followed by the pupils' preparation of lists of sources, properly organized under the teacher's guidance. (d) Finally, the pupils gather the information according to plan.

Indexes. Pupils should learn how to use a variety of indexes for locating books and articles on specific subjects. This includes especially the use of the library card catalog for locating books either by author or by subject matter; also the use of the *Readers Guide* for locating magazine articles on specific subjects. The pupil should be taught fairly early how to find relevant material within a book by consulting the table of contents, the list of illustrations, tables, and charts; the index, and finally sectional and topical headings within the book.

General References. When working on experience units and

other projects, elementary school pupils in the intermediate grades have occasion to seek special information from standard reference works. They should become familiar with several of these reference sources and be taught how to employ them effectively. Such sources might include, besides a good dictionary, *The World Almanac*, *Compton's Pictured Encyclopedia*, *The World Book Encyclopedia*, an atlas, a biographical dictionary, a dictionary of geographical place names. Detailed steps for teaching how to use indexes and reference books are outlined by McKee (126). Also some instruction should be included on how to make use of newspapers and current magazines in running down relevant information.

Relevant Information. In addition to acquainting him with the somewhat mechanical skills involved in using a book index, a card catalog, or an encyclopedia, the child must be taught to employ discrimination in selecting just the information he needs for the problem at hand. This is a matter of how he is to go about selecting those facts or ideas which are pertinent to the questions raised in the unit, project, or problem. Good discrimination is possible only when his purposes are clearly defined. Then all the steps in successful location of the information involve doing just what is specifically relevant to that purpose. Since the degree of discrimination required for skillful selection of such information is not easily acquired, considerable practice in developing it under teacher guidance is sure to be necessary.

Evaluation and organization

Once the materials relevant to a unit, project, topic, problem, or question have been located, they must be sifted and organized. Evaluation involves a weighing of the items of information selected in order to reach a good estimate of their relative importance in achieving the purpose at hand. Evaluation is one of the comprehension skills considered in Chapter X.

After the pupil selects and weighs information for a particular purpose, he will need to plan and carry out some method of organizing the pertinent facts and ideas so that they may be effectively used in an oral or written report, or in rounding out an area of

knowledge in an experience unit, in furnishing specific details to supplement knowledge already at hand, or simply in satisfying his curiosity to the end that he may get his thoughts on some topic in order. At times this organization may be a matter of tying together a few bits of information. At other times it may extend to fairly comprehensive knowledge of a topic.

It is well known that outlining and summarizing are important aids to learning. Since a goodly proportion of pupils fail to acquire *adequate skill in organizing unaided, specific instruction is needed.* This instruction should be concerned either with organization of relevant items of information, selected from various sources, in their proper relations, or with outlining and summarizing the material in single articles or chapters. To accomplish this, McKee (126) has suggested a teaching program by grades. Instruction involves identification of the main topic and sub-topics with supporting details in a paragraph or in longer selections. This is followed by instruction on how to organize the topics and details. In addition, *guidance is necessary in organizing outlines based upon materials* drawn from various sources for use in an experience unit and in other study projects. The accumulated items of information are placed in proper relationship to produce a logically organized whole which may then be used in a report or a discussion. The pattern of such an outline is determined largely by the purpose for which the reading is done. Finally, training is needed to develop skill in condensing the information from longer selections into a summary paragraph.

Study skills in general

One or more of these study skills are employed by any young reader in a variety of learning situations. As he progresses through the intermediate grades, he finds broader and more constant application for them. Insufficient mastery of these study skills makes it difficult or impossible to read proficiently in the content fields either in the intermediate grades or later.

Summary

Reading instruction during grades four, five, and six is concerned with completing and perfecting the basic reading abilities in addition to acquiring the special reading skills needed for proficient reading in the content subjects and other work-type materials. During these grades the child becomes an independent and extensive reader. By the time the sixth grade is finished, the child who has made normal progress will have acquired a sound foundation for reading in later years.

During the intermediate grades the developmental program in word recognition, word meanings, and comprehension skills should be pushed to completion. To this is added training in the study skills. The latter involves instruction in the use of indexes and general reference works. The child must be taught to employ discrimination in selecting the relevant information he needs in projects and to evaluate and organize this information for use in discussion and reports.

Selected references on teaching reading in grades four, five, and six are listed at the end of Chapter XV.

CHAPTER XV

Reading in Grades Four, Five, and Six (*Continued*)

The preceding chapter dealt with the completion of the developmental program begun in the primary grades and with study skills. As we now go into the details of the reading program in the intermediate grades, we take up the way in which the instructional program in reading is combined with the content subject matters of those grades.

Reading Content Subjects

Improved proficiency in word recognition techniques, command of a wider vocabulary, better comprehension, and study skills, are all inter-related and find ready application in the reading of each subject in the curriculum. The pupil must learn to adjust the abilities, skills, and procedures at his disposal to the specific requirements of each subject matter he encounters in grades four, five, and six. It is during these grades that the foundations already established are made more solid, are refined and supplemented so that the child is well prepared for the demands upon his study skills at higher levels in school.

As pointed out by Gray (74), to read effectively the material in science, arithmetic, geography, and history as he progresses through the grades, it is necessary for the child to grasp the unique aims, ideas, logic, and relationships of each area. Satisfactory reading instruction in these content areas is possible only if the teacher is fully acquainted with the purpose and unique character of the ma-

terial in each of them. Helpful suggestions on materials and methods are given by Gray (81) and by Whipple (188).

The child must be prepared to accept a heavy burden of technical vocabulary specific to each subject like arithmetic and geography. The importance of acquiring a meaningful store of technical terms uniquely belonging to each subject cannot be overemphasized. Each of these technical words acquires meaning not in splendid isolation, but only in terms of a well-rooted concept becoming sharply defined in terms of the relationships relevant to each particular context in which it occurs. For instance we have such words as *delta* in geography, *germination* in science, *state representative* in social studies, and *fraction* in arithmetic. To become securely meaningful, each of these terms must be clearly understood in the place where it is used.

Besides acquiring appropriate skills, abilities, and methods of procedure, the child must learn how and when to apply them, how to adjust to the requirements of the material, and how to achieve his purpose in a particular reading situation. At one moment he may be reading a story about a picnic and at the next required to *describe the formation and movement of a glacier*. Or contrast his mental set when his task is to find yesterday's baseball score with that of looking up the population of Illinois in 1940.

Some content subjects require extensive reading (social studies), others relatively little (arithmetic). And some material may be read relatively fast yet with satisfactory understanding while other material must be read very slowly or even reread more than once to grasp the meanings and relationships involved. So the child must also learn when and how to change his pace to fit the requirements of the material as well as to fulfill his varying purposes. No one can doubt that an extended period of guided development is required to provide the elementary school child with all sorts of varied reading experiences and habits of adjusting to materials, and ways of fulfilling different purposes, if whatever particular selection comes up is to be read effectively. The teacher, therefore, must herself be able to appreciate the reading skills and abilities needed for reading a given selection and have a good idea how they should be taught. Although many children do make some adjustment to

materials and purpose without systematic guidance, good instruction is desirable and necessary for more rapid progress.

The specialized reading skills and abilities employed in content subjects are built upon and make use of those developed in the basic reading program. Hence satisfactory proficiency in the basal program should be prerequisite to the more specialized reading in supplementary readers, reference materials, magazines, and other sources. Although all of a pupil's reading skills can be useful in adjusting to a new reading situation, there is little chance of maximum utilization of these skills unless there is competent teacher guidance. There should be adjustment to individual differences and to individual difficulties. No pupil should be required to read material beyond his range of comprehension.

Skill in reading content subjects is related to proficiency in the basal reading program. In fact, Swenson (165) shows that there is considerable overlapping in the acquisition of reading abilities required in different subject fields. Apparently skill acquired in one area shows some transfer to another. But the evidence is only in terms of group *trends*. There are many individual exceptions to these trends. Without instruction in reading content material, many pupils will fail to achieve satisfactory progress. Teaching how to read a content subject should be done with materials in that specific subject. It is possible, for instance, for a pupil to be a proficient reader in the basal program but poor in geography if he does not receive specific instruction in reading geography when that help is needed. And many pupils do need the specific guidance to learn to read content material satisfactorily. In short, the subject-matter teacher is responsible for teaching reading as well as content in any particular area.

Teaching reading in content fields

From the above discussion it may be inferred that learning to read effectively in the content fields is a difficult, complicated, and long-enduring task. Although some beginnings may have occurred in grade three, the more intensive instruction begins in grade four and extends through the rest of the elementary grades. Skill in adapting reading habits to purpose and kind of material, develop-

ment of concepts necessary to clarify vocabulary meanings specific to the field, and adjusting modes of thinking to the requirements of the specific field all necessitate guidance beyond that received in the basic reading program. In each of the content areas reading involves some degree of uniqueness in reading habits and abilities, reading techniques or methods, vocabulary and concepts, modes of thinking, and attitudes toward subject matter.

To teach subject-matter materials such as geography, history, mathematics, or science, the teacher must know the reading problems and difficulties in the field with which she is concerned. Unique skills, problems, and difficulties in each of the content fields are considered by McCullough, Strang and Traxler (124), Gray (74), Bond and Wagner (16), and Adams, Gray and Reese (1). Those in the social studies receive special attention by Horn (101), Preston (138) and by Wesley (184). Some of the high spots among the points they stress are outlined in the following paragraphs.

Social studies: general and history

Reading problems in the social studies are many and severe. Since the range of direct experience in these areas which the pupil has had is *ordinarily sharply restricted*, his understanding of historical, civic, economic, and geographic realities must be gained largely through reading. The range in variety of reading experience required is great. It extends from reading for the main idea to slow careful reading with attention devoted to closely packed, sometimes intricate, details.

Several types of problems bob up more or less frequently in all the social studies. Some of the more prominent of these, including a few that refer more specifically to history, follow:

Vocabulary. The most commonly encountered stumbling blocks are specialized terms and their accompanying concepts. There are a large number of unique words such as *hieroglyphic*, *immigration*, *planet*, and proper names of people, places, and events. Besides these there are the words with specialized meanings attached when they occur in the context of certain social studies as *branch*, *range*, *cape*, *mouth*. Especially difficult are the abstract words such as *empire*, *democracy*, *communication*, and *culture*. Although it is

possible to pronounce some of these terms without special aid, many of the meanings are learned only gradually and with teacher guidance. Lists of important words intended to aid instruction in these fields are given by Cole (30), Kelty (104), Pressey and Pressey (137), and Stephenson and McGehee (157).

Complex Concepts. It is the concept that gives meaning to a vocabulary term. So the development of concepts and vocabulary meanings progress hand in hand. In the social studies some concepts, and consequently the meanings of words, are very complex and difficult to learn. Although extensive reading of appropriate materials is of major assistance, instruction is needed for clarification of their meanings. The provision of reinforcement of incentives to dig out meanings, the clearing up of misconceptions, and developing methods of procedure are largely a matter of teacher guidance.

Rôle of Wide Reading. Success in the social studies is practically impossible without wide reading. It is not only necessary for concept and meaning vocabulary development, but also for collecting material from many sources, for background reading, and for contributing to experience units.

Use of Current Materials. Current newspapers and magazines furnish important material for use in social studies. Bond and Wagner (16) note the importance of relating current and specific happenings to the broader concepts under consideration.

Selection, Evaluation, and Organization. The wide and extensive reading employed to maintain satisfactory progress in the social studies requires application of various study and comprehension skills. Acquaintance with source materials and how to use them in selecting pertinent information, the critical reading involving judgment in evaluation of the selected materials, and the organization of the information which is wanted for use in reports or discussions are all involved. The teacher of social studies must be conscious of the difficulties involved in developing both over-all aims and critical reading. These include thoughtful weighing of various aspects of a controversial issue, detection of an author's prejudices, avoidance of emotional bias on the part of the reader, and distinguishing fact from opinion as well as evaluation of conclusions presented. Special attention has been directed to these skills in Chapters X and XIV.

Due to the style of writing they employ, textbooks in such social studies areas as history and geography frequently put many hurdles in the way of the reader. There is, for instance, the packing of numerous facts and ideas into relatively small space without enough organizational clues (headings, subheadings, boldface or italic type) to exhibit plainly the relative importance of different facts and ideas. There is little or no indication, therefore, as to which ones are most worth learning. Yet to memorize all the detailed contents is neither possible nor desirable. The outcome is likely to be that the pupil stumbles along learning indiscriminately some facts and ideas, or picks up no appreciable learning at all.

Too frequently authors in the social studies introduce specialized words with inadequate or no attempts at defining them. Furthermore, they inject new ideas without providing a sufficient context of meanings to clarify them. Distinct progress has been made toward overcoming many of these shortcomings in some recently published texts.

Other Problems. In addition to the reading problems which are general in the social studies, there are others more particularly relevant to history although not unknown in the other social studies. The more recurrent ones involve: (a) The temporal order of events, which will be mastered only with guidance, is not made transparently clear. (b) The setting of events in relation to the period when they occurred or their place settings are not clear to pupils who have a strong tendency to interpret everything in terms of present-day conditions. This is particularly true with the treatment of the historical predecessors of modern methods of communication or transportation, or science, or living conditions in general. Here, an important aspect of guidance consists in furnishing the child with as adequate a background as possible for interpreting past events in relation to the particular time and conditions in which they occurred. It is urgently desirable to do everything possible to build up a child's historical perspective and to help him offset his own limitations in interpreting past events. Wide reading, with tracing out of the relations of past to present, all by discussion under guidance, can help in attaining these goals. (c) The reading and interpretation of pictures, charts, maps, and related materials

constitutes a specialized kind of reading which facilitates development of relevant word meanings and concepts in addition to providing information. Instruction is needed, for instance, to interpret the significance of "drawn to scale," to grasp the story told by a picture or map, and to relate the picture or map to the textual material. Guidance for careful interpretation or reading of pictures, maps, and figures is too frequently neglected in the social studies.

Social studies: geography

The reading problems common to the social studies considered above also occur with greater or less prominence in reading geography materials. These include difficulties with both general and specific vocabularies, complex concepts, style of writing in texts, interpretation of pictures, maps, and figures, and adaptation of study and comprehension skills to reading geographical materials. Details need not be repeated. Again the greatest difficulties arise in relation to vocabulary meanings and concepts. Gray (74) has outlined several challenging problems which arise. Some of these have already been considered. Others may be touched on briefly. All intelligent reading of geographical material requires appreciation of human conditions (housing, clothing, food, occupations, traditions), material conditions (physical features, climate, vegetation) and the relation between the two sets of conditions. Most pupils cannot grasp many of these relationships without teacher guidance.

The pupil must maintain his geographic set in selecting content, in verbal or quantitative form, which is pertinent to a geographical unit. The desirable visualizing of human conditions and physical features described in the readings is aided by clear understanding of terms and concepts as well as by ability to read maps, pictures, and diagrams. Added to this is the need to get additional light on text descriptions by comparing them with pictures, figures, and representations on maps.

Another problem is teaching the child to think in terms of geographical location as he reads about different places and what goes on in them. Housing, transportation, and industry vary widely according to location. Without guidance on these matters, faulty impressions are easily acquired as to their direction and distance. As

a matter of fact, if a course in geography is to be of high quality, the pupils must learn not only to adapt study and comprehension skills, but also to make use of the variety of special aids specifically applicable to this field.

Science

There is now much reading of science materials in the elementary school, and rightly so. Gray (74) runs through the variety of purposes for which these materials are read ranging from re-presenting the story of one unit of science-content to detailing the consecutive steps in an experiment, or checking over the conclusions arrived at in a class discussion. A considerable part of the problems which arise in reading science is due to the inherent difficulty of this material. Others spring from the unsatisfactory manner in which an author presents his discussions.

Many of the problems encountered in reading science are analogous to those met in the social studies and can be commented on and handled in a similar manner:

Vocabulary and Concepts. The language of science is precise and specific. Even its elementary concepts are sometimes complex and difficult to understand. According to Cole (30), it is necessary to learn the minimum essentials of scientific vocabulary and the concepts it embodies if satisfactory comprehension is to be achieved. Experiments, demonstrations, and visual aids must be drawn on in developing and clarifying concepts in science.

Pictures and Diagrams. Reading and interpretation of scientific pictures and diagrams requires instruction. And of course this involves guidance in relating a verbal text discussing facts and principles to the pictures and diagrams which are added to help make them clear.

Study and Comprehension Skills. The manner in which these are drawn upon must be adjusted to the pupil's purposes and to the demands of the particular subject matter. Close thinking is required in handling much scientific information, though materials vary from fairly general descriptions to outlining the precise steps in an experiment. The pupil must be prepared to vary his method of procedure to achieve the most effective reading of each kind of material. Read-

ing for details, reading to follow directions, and reading to arrive at generalizations are frequently required. An important aspect of this adjustment is employing the proper rate of reading.

In reading scientific material, particularly when working on a topical unit, selection, evaluation, and organization are necessary as in other subject fields. Since there are difficulties with concepts, grasping relationships, evaluating, and generalizing, it is particularly important to teach the child to think while reading scientific material. This is merely one special instance of the basic demand that the reading process be a thinking process.

Arithmetic

Reading arithmetical material, like everything else, presents a variety of problems, some of them highly specific. In fact, there are frequently more reading problems per page in arithmetic than in any other content subject. As is true of science, arithmetic has its technical vocabulary (*quotient, divisor*), uses common words with special meaning (*product, dividend*), employs complex concepts, and involves the study of relationships, making generalizations, and reading and interpreting of pictures and diagrams. Thus Wheat (187) shows that pupils tend to have meager arithmetical vocabularies and to be inexact in using what they do have. More specifically we call attention to:

Meaning of Symbols. For the first time pupils must learn to attach meanings to highly abbreviated symbols as $+$, $-$, \div and $=$. Prior reading has dealt with words as symbols; now the words are condensed to "short-hand" signs. Thus "is equal to" is represented by the symbol $=$. Furthermore, children need to learn prompt recognition of several specialized abbreviations such as *gal.*, *lb.*, *ft.*, and *doz.* Occasionally 20 or more abbreviations are found on a single page. Similarly meanings must be assigned to numbers encountered in context and to numerals isolated in columns (addition, subtraction, and multiplication problems). These must be read and manipulated accurately. Without instruction many pupils make slow progress in acquiring sufficient skill in reading and properly manipulating these symbols, abbreviations, and numerals. The adjustment of instruction to individual needs must necessarily take into account

these hazards. A prerequisite to the solution of an arithmetical problem is that the pupil have an accurate command of all symbols it uses whether verbal or in the form of condensed signs.

Verbal Problems. The statement of arithmetical problems tends to be extremely compact, divorced from concrete context, and involves complex relationships. The demands on the thinking processes are high. The child should be taught that satisfactory reading of an arithmetical problem is achieved by slow, careful, precise progress, together with rereading and reflection. There must be not only clear understanding of words and phrases, but also a selection of relevant facts and a weighing of relationships between the pertinent words and phrases in the total pattern of the problem. Though little material is read so far as bulk goes, the most intensive concentration is required to grasp its meaning. Reading arithmetical problems is one of the most difficult reading tasks encountered in the elementary school. Systematic guidance is needed, infused with a full realization of the reading difficulties which the child is up against.

Authors are not without fault in presenting verbal arithmetical problems. Irrelevant and distracting facts are sometimes included. Or the phrasing of the problem may fail to present a pattern that furnishes clues to the steps in the solution. In any case, as pointed out by Bond and Wagner (16), it is inevitable that the child should adopt a pattern of procedure that will lead him to discern first, the information required in the answer; second, all the pertinent facts necessary to the solution; third, a sequential pattern of appropriate steps leading to the solution; and fourth, an evaluation of the answer he gets in terms of what is asked for.

General. Proficient reading of arithmetical materials depends, therefore, upon skillful adjustment of study and comprehension skills to the unique requirements of this subject, and the development of certain new skills and procedures. As with any subject, the reading instruction should be in context, that is, saturated with arithmetical materials and with learning arithmetical operations.

Oral Reading

At various places in this book it has been stated that throughout the elementary school there should be a coördinated, balanced pro-

gram of reading instruction with adequate emphasis on both oral and silent reading. This by no means signifies equal emphasis on the two in all grades *nor* does it mean a slighting of oral reading in the intermediate grades. Though oral reading should not be neglected at any level, silent reading should increase as the child progresses through the grades.

Adams, Gray, and Reese (1) note that proficient silent reading does not necessarily indicate that a child can read well orally. With lack of practice or ineffective teaching, highly proficient silent readers frequently are unable to read orally with any satisfactory degree of proficiency. Lack of skill in oral reading among many pupils in the intermediate grades suggests the need of more or better training at this level. If emphasis, articulation, phrasing, and expression are poor, oral reading becomes uninteresting and carries little meaning to the audience. On the other hand, an undue stress which produces mechanical perfection without comprehension in the oral reading is to be condemned.

The functional values and objectives of oral reading in the intermediate grades are similar to those in grades two and three. Even in school, in addition to its contribution to the language arts program (promoting skill in speech, grammar, conversation, pronunciation, vocabulary enrichment, and literary appreciation), oral reading can provide enjoyment in a social group. Also it permits sharing of information and promotes poise in social situations. And of course there are many business, professional, and social uses of oral presentation of materials outside of school and in later life. These include reading reports, notices, and speeches at meetings, reading over the radio, as well as reading materials from books, magazines, and newspapers for the enjoyment of others.

To a large degree the functional values and objectives in oral reading training are concerned with reading in the audience situation. Consequently most oral reading in the intermediate grades is and should be reading before an audience. Horn and Curtis (102) specify the essentials in this situation: (a) a purpose, (b) an appropriate selection, (c) preparation through silent reading and oral practice prior to delivery, and (d) an audience which is attentive and interested because it has a reason for listening.

The primary purpose in reading to an audience is to achieve communication of ideas from the printed page. The reader comprehends the author's thought and communicates this to the audience. This requires attention to a number of skills such as correct pronunciation, clear articulation, appropriate loudness, proper phrasing, a natural tone properly pitched and expressive, and a pattern of emphasis which makes meanings clear. Both fluency of speech and adaptation to the way of speaking to the audience are important to the degree in which they promote the processes of communication.

Guidance in oral reading requires adapting instruction to individual needs and deficiencies. Satisfactory standards in oral reading are reached in proportion to the degree of proficiency achieved in the objectives of oral reading outlined above. Detailed consideration to these is given by Adams, Gray and Reese (1).

Appraisal of Progress

To find out how much progress has been made in reading proficiency it is necessary from time to time to evaluate pupil achievement. The teacher in the intermediate grades will want these frequent appraisals to note rate of progress in learning fundamentals and specific skills, to check results of instruction in specific areas, and to discover pupil deficiencies. Appraisal is made by the aid of teacher-made informal tests, and standardized tests as well as day-by-day observation of pupil performance.

In addition to achieving a grade score of at least seven on standardized tests by the end of grade six, *satisfactory standards of achievement are indicated by successful progress along the lines described in this and the preceding chapter: Word recognition, vocabulary and concept development, comprehension skills, study skills, reading content subjects, oral reading.* Successful progress has been achieved when the pupil has acquired a sound foundation for the mature reading required at higher levels in school and in life situations outside school.

Recognition of the need for reading instruction at levels above the sixth grade is increasing. Already the teaching of reading is well organized at the junior and senior high-school levels in a few schools. Remedial reading programs in both high school and college are increasing steadily.

If we accept the view that reading readiness is necessary at all levels and that reading is developmental in nature it presupposes that we teach reading at levels above the elementary grades. This becomes primarily the task of the content teachers at the higher levels.

Summary

In general, proficient reading in the content fields depends upon the following: (a) acquiring a foundation in the basic reading skills, (b) mastery of comprehension and study skills, (c) acquisition of flexibility in adapting the above skills to the purposes and subject-matter requirements in each of the content fields, and (d) learning the supplementary skills necessary to meet the reading problems which are unique to a particular content field. The first two are developed in the basic reading program. The latter are developed to meet individual needs in the reading problems identified in learning activities whether in regular texts or in unit activities. Progress in developing these adjustments and special skills will be gradual for most pupils. Proficiency acquired during the intermediate grades in reading content subjects will prove invaluable throughout later years.

The balanced program requires instruction in both oral and silent reading throughout the intermediate grades. Although the relative emphasis upon silent reading increases as the child progresses through the grades, oral reading should not be neglected at any level. By the end of grade six, successful progress has been achieved when the child has acquired a sound foundation for the mature reading required at higher grades and in everyday situations outside school.

Selected References

- ADAMS, Fay, GRAY, Lillian, and REESE, Dora, *Teaching children to read*. New York: The Ronald Press Company, 1949, chap. 9.
- BOND, Guy L., and WAGNER, Eva B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chaps. 12-14.
- BROOM, M. E. and others, *Effective reading instruction in the elementary school*. New York: McGraw-Hill Book Company, Inc., 1942, chaps. 7, 8.
- MCKEE, Paul, *The teaching of reading in the elementary school*. Boston: Houghton Mifflin Company, 1948, chap. 11.
- RUSSELL, David H., *Children learn to read*. Boston: Ginn and Co., 1949, chap. 8.

CHAPTER XVI

Reading Interests and Tastes

A successful reading program in the elementary school is reflected by the degree to which the children who have completed it engage spontaneously and voluntarily in reading various types of materials. In addition to achieving independence in reading through the acquisition of good sound reading skills, the child must *want* to read widely, both for *enjoyment* and *profit*. In all this the amount, the range, and the quality of what is read are each in its own way highly important. The child should acquire a desire to read not only for information and recreation but also because he has social and personal needs which reading can do much to develop. To achieve the proper degree of maturity in reading, the instruction he had in school must also have provided him with broad and permanent interests, and an appropriate level of taste. The latter are of concern to the teachers at all grade levels. Guidance, starting with the beginning of reading instruction, can do much to cultivate them, even though all factors involved in their development do not occur as parts of school experience. The growth of reading interests and tastes is gradual. Even so, the stage reached by the end of grade six can provide a fairly firm foundation for future expansion.

Interests

The child who is interested in animals may be more strongly motivated to read animal stories than accounts of trains, ships, automobiles, and other forms of transportation. Interest patterns are learned reaction tendencies which predispose a person to respond

In general, discussions on this subject emphasize a vital relationship between interest patterns and progress in reading. The more satisfactory reading programs are based upon children's needs. To an appreciable degree these needs are reflected in interest patterns which can provide strong motivation both for achievement in reading and for pursuing wide and extensive reading. So identification and utilization of pupils' interests is a feature of prime importance in the balanced reading program.

To limit a child's reading to areas within which his present interests are confined, however, does not provide proper guidance. A child's interests may be at one time relatively narrow, or temporary in nature. Therefore it is the business of the teacher to start where the pupil is and lead him forward through wise and skillful guidance to broaden his old interests and to establish new and perhaps more mature interests.

Reading Tastes

As noted above, interest determines largely the area or field where a pupil tends to concentrate his reading activities as well as the amount of reading he will do in a particular field. For instance, a child interested in animals may read a wide variety of available materials on different animals but concentrates for his most avid and intensive reading on dog stories because he loves his own pet dog so much. The character or quality of what is chosen for reading within a field of interests represents *taste*. Thus, whether one prefers stories about pirates found in pulp magazines or *Treasure Island* is a matter of taste. The perception and enjoyment of what constitutes excellence in reading materials in any area or field marks the difference between good and less good taste in reading.

A criterion of excellence, however, is not easy to establish. It would seem that there must be degrees of excellence in any field of writing: animals stories, adventure stories, scientific materials, or imaginative stories. Improvement in taste involves a change in preference from a lower to a higher level of excellence for materials read in any field. Preference or choice implies discrimination. To achieve discrimination the child should have a wide range of experiences. Tastes as well as interests grow out of past experiences.

This growth tends to be both slow and irregular. Also, a child's taste may be good in one area like nature stories, but relatively poor in another like the literature of human character. From these considerations, it would seem that tastes evolve or grow; they are not imposed from above. Methods of providing opportunity for growth are discussed below.

Although it is not easy to specify what constitutes a high or desirable level of taste, it is possible to point out certain factors involved. The manner of providing for basic needs will influence taste. According to Arbuthnot (4), preferences for reading materials are frequently motivated by inner drives based upon needs such as security, love, achievement, play, change, and group participation. Awareness of a need and providing the appropriate book at the right time can be an important factor in guidance for developing taste.

Reading which promotes personal and social development contributes to the acquisition of a desirable level of taste. This view is convincingly presented by Smith (153). There is need for reading which provides for personal enrichment and imaginative experience as well as that which broadens acquaintance with what is already familiar. According to Smith, *the functions of literature should include reading to produce delight, to give a heightened quality to familiar experience, to broaden experience and deepen understanding, to open up to young readers the common culture of children everywhere, to offer an escape from the humdrum activities of daily life, and to help develop standards of esthetic appreciation.* To achieve these functions there must be sympathetic and enthusiastic guidance and free access to appropriate reading materials.

In general, a higher level of taste will be achieved when the background of experience is broad enough to cultivate discrimination which leads to choice of those reading materials which provide more adequately for basic and acquired needs, for personal and social development, and for the greater satisfactions that come with these. Progress in achieving higher levels of taste can be cumulative. That is, making one step upward should encourage making another still higher one. Nevertheless, achieving growth in tastes will remain highly individual and must be evaluated in terms of the increased

happiness, increased satisfactions and increased adjustments of the person concerned. Comparison of the status of one individual with general criteria established by authorities is difficult or even futile. Improvement in taste must always be relative to the level at which the individual finds himself, and must be in terms of his experience. What is "good" literature for one child may not be at all worth reading by another.

To a certain degree, memory, imagination, and reason are elements which tend to individualize the growth of tastes in reading. Other things being equal, the child will tend to choose reading material which will arouse *pleasant associations* with some aspect of his past experience. The greater the number and the broader the variety of satisfying and worthwhile experiences, therefore, the better the opportunity for discriminating and choosing reading matter which furthers growth in tastes. It is fundamental that tastes should evolve from past experiences.

Children's almost universal liking for literature which stimulates the *imagination* is not an unhealthy trend, providing contact with reality is not lost. Depriving the child of fairy tales and other imaginative literature will tend to produce starved imaginations. The leavening effect of including an appropriate amount of imaginative literature in a balanced reading program is to be sought. Smith also states that materials which stimulate humor, imagination, and the "lure of the beyond" can bring important and desirable joy, enrichment and increased range of experience. When a child has become somewhat acquainted with imaginative literature, he is better qualified to exercise discrimination in choosing additional material of like nature. Without such experience, however, the child may seek escape from harsh reality through reading less acceptable materials (certain comics and pulp magazines) or through excessive day-dreaming, or both.

The exercise of sound judgment in the discrimination and choice of reading material is a more or less individual matter. Again, broad and varied experience influences and strengthens this power of discrimination and thus is a factor in developing tastes.

Factors promoting growth in tastes

The amount of growth in reading tastes which occurs by chance is seldom appreciable. Favorable opportunity and good guidance are needed. In the early primary grades the obligation to instill the stimulation that leads to enjoyment of good children's literature falls upon the teacher. She can accomplish this by reading carefully selected materials aloud to the children. Then as the children grow in their own reading proficiency they should increasingly choose and read materials by themselves.

The text in a well organized basic reading program will provide a wide sampling of materials. These can initiate growth toward good tastes and interests. Continuation of such growth will occur, however, only if opportunity and guidance are provided for extension of these interests to related materials.

Among the more important conditions which facilitate the growth of tastes are ability to read proficiently, wide reading activities and interests, available materials, and good teaching.

Reading Proficiency. Only when a child is capable of reading a given kind of material with facility and a high degree of understanding will he be able to achieve the enthusiasm which maintains his interest and produces the enjoyment so necessary in developing taste. This implies that a child must have acquired the skills in recognizing words and in comprehension needed to read a given story with satisfaction, and without undue effort. Lack of ability to read well prevents acquisition of maturity in either interests or taste. Since there is a wide range in reading ability in all but the first grade, adjustment to individual differences in any program for developing tastes is necessary. In many fields, more books of good quality are available at the higher levels of reading difficulty. Increase in reading proficiency, therefore, will facilitate improvement in taste.

Wide Reading and Broad Interests. Other things being equal, the wider the reading and the broader the reading interests, the more favorable the conditions for improvement of tastes. In general the development of broad reading interests and tastes occur simultaneously. As a matter of fact, many writers tend to discuss reading interests and tastes as if the two terms were synonymous. At least

they are reciprocal in their action. Interests are essential to develop taste, and taste stimulates broadening of interests. Furthermore, no appreciable progress can be made in developing interests and tastes without wide reading. Basically, both interest and taste evolve from experience. Providing the child with varied and rich experiences outside school, in school activities and in reading, therefore, will establish foundations which will facilitate development of interests and tastes. Suggestions for guiding the growth of reading interests are given by Lazar (117).

Opportunity for Growth. Both reading interests and tastes are furthered by favorable environmental factors. Not the least of these is having materials available. Children tend to read what is at hand and what is most readily obtained. This is true for materials in the home, in the school room, in the school library, and at the corner drug store. Somewhat more remote are the books in the branch and the main public libraries. Unfortunately the materials in many homes tend to be limited in scope and poor in quality. And the wretchedly poor quality of some magazines available at neighborhood stores is easily recognizable.

In addition to having access to suitable materials, the child must have the time for reading them, if his taste is to be improved. This applies to school programs as well as at home. Much can be done in the school by providing time and materials for leisure reading. Outside of school, however, play and work activities of children compete for the available time. Also, social pressures both from parents and from other children are frequently adverse to keeping an appreciable reserve of time for reading activities. The unfavorable attitudes of parents and playmates toward reading frequently constitute formidable obstacles in the way of the child's progress. On the other hand excessive reading can, of course, become a form of behavior which is an escape or a retreat from reality and encourages unhealthy fantasy. Although reading should have a place in a balanced program of childhood activities, it should not become an indulgence which excludes other healthful activities.

Rôle of the Teacher. Growth in taste is encouraged by a well-read, enthusiastic, and understanding teacher. The teacher who knows her pupils, who has a wide acquaintance with books, and

who has a real enthusiasm for working with children can do much toward influencing the reading activities of her pupils. Her knowledge of pupils' interests and attitudes and her ability to channel enthusiasms tend to bring children and books together. According to Smith (153), the understanding teacher senses the appropriate times for introducing books so that she gets the right book to the right child at the right time.

The teacher may encourage improved tastes as well as stimulate a broadening of interests by telling stories and by reading poems and stories aloud to pupils. Also, the teacher who has a wide knowledge of books can share experiences based upon them with her pupils through discussions. To maintain a high level of instruction, teachers should extend their knowledge of books from year to year. This is aided by familiarity with sources of information about books. Other things being equal, the teacher who knows reading materials, both fictional and factual, will be most likely to succeed in developing interests and tastes in her pupils. To know children's literature well and to carry out a rigorous program for improving taste is, at times at least, an arduous task for the teacher, but it yields gratifying returns.

The School and the Guidance Program

Whenever a well organized program under able guidance has been carried out, improvement in reading tastes has been the result. The broadening of reading interests and the improvement of reading tastes can and should be an important responsibility of the school. The rôles of experience and reading proficiency, the interaction of interests and tastes, provision of adequate opportunity, and the rôle of the teacher have already been discussed. Now we will give some attention to other aspects of the school organization and the guidance program for developing tastes.

Books and Library Facilities. It was noted above that children tend to read whatever materials are available. It is desirable, therefore, to provide an ample stock of books varying in subject matter and difficulty for the room library or reading nook of each classroom. Whenever it is possible to have a school library, the classroom

library should be coördinated with it so that there may be frequent exchange of books. Loans of books from city or county libraries at periodic intervals can also provide important supplements to the classroom library. The facilities of the school and classroom libraries should provide generous amounts of time for leisure reading in the classroom or in the school library, or in both.

The teacher and the librarian should coöperate to give guidance in the use of both school and public library facilities. Children should be introduced to the kinds of materials available in libraries and taught how these may be used to satisfy needs and interests. Trips to the library, skill in use of the card catalog, opportunity to browse among new as well as old books, a knowledge of what is available, and a feeling of being welcome all help in establishing the library habit. This coöperation between librarian and teacher can do much toward getting the right book to the right child at the right time.

Children should be guided to discriminate quality in all kinds of materials,—fictional, scientific, historical, cultural, or informational.

Techniques of Guidance. Smith outlines a number of procedures and activities helpful in guidance. One prime prerequisite for a rich program of contacts with books is reading that is related to the child's experience, directly or indirectly, in school and out. The time for a particular story is when an incident occurs which is readily associated with happenings in the story, such as arrival of a circus in town, arrival of the first robins in spring, acquisition of goldfish or a turtle in the schoolroom aquarium, and the advent of special holidays like Thanksgiving or Christmas.

A variety of approaches may be employed to enhance appreciation and stimulate interest in reading. Puppet shows can be successfully presented. Some of the better recordings such as the Basil Rathbone's reading of Dickens' *Christmas Carol* are effective. Interest and appreciation of literature can be stimulated by selected children's radio programs and transcriptions. Some excellent slides and films are now available for developing interest and taste in reading. Appreciation of poetry is enhanced by simple choral reading. Classroom book displays advertised by simple tableaux, displays of book jackets, and pictorial maps tend to generate interest and pro-

mote reading of the books concerned. The effectiveness of these approaches in developing interest and tastes is described by Smith (153).

To broaden reading interests and improve reading tastes there must be something beyond the stimulation that comes from sharing of books and literature. To acquire a habit of reading the child must also find those books which satisfy his own needs. Data from studies of children's interests in reading can supply the teacher with important and helpful suggestions in her program of guidance in individual reading. Useful summaries of these data are presented by Witty and Kopel (191), Rankin (139), Terman and Lima (166), and Russell (146). On the whole, stories about animals, and about activities of children like themselves are generally popular. Sex differences become prominent by nine years of age and continue to be strong determiners of interests until about fifteen. From nine years on, boys ordinarily turn from fairy stories toward realistic stories; girls tend to prefer sentimental stories and romance. Boys demand rigorous action, sport stories, and adventure; girls like stories of home and school life. Although boys show practically no interest in girls' books, girls manifest a decided interest in boys' books during the later elementary-school years. It is during these years that love of mystery and excitement in literature increases. In addition to information about types of books children prefer, the teacher should know the interest patterns of individual children as discussed earlier in this chapter.

Level of reading tastes

There is a consensus of judgment, in the data supported by surveys and comments of writers and teachers, that the reading interests and tastes of both children and adults in our American civilization are relatively immature. Some of the terms employed to describe the general level of reading tastes are "mediocre," "deplorable," "appalling," and "leaves much to be desired." The number and variety of "cheap" comic magazines and pulp magazines sold, the type of books most commonly withdrawn from the library, and surveys of reading habits seem to indicate a relatively low level of discrimination in choice of reading materials. *There can be little doubt about*

the desirability of guidance to broaden interests and improve reading taste among Americans of all ages.

There are indications, however, that the conditions may not be so black as often inferred, and that the probability of improvement with proper guidance is good. In spite of the competition from other leisure-time activities such as movies, radio, television, motoring, and all sorts of play activities, a surprisingly large amount of reading gets done by a majority of the population. In addition to large newspaper circulation, there are the tremendous weekly and monthly circulations of many magazines. For instance, the *Reader's Digest* in the English edition has over eight million circulation per month. Further testimony to popularity of reading is revealed by the numerous commercial book clubs such as *Literary Guild* and others. In addition, there is the tremendous sale of inexpensive reprints of books in paper-bound editions. These include children's as well as adult books. These inexpensive books sell by the millions per year and are increasing in popularity. In addition to the public libraries, there are the thousands of commercial loan libraries located in corner drug stores, book stores, and department stores. In general, it is surprising that so many people read so much when competing activities are considered. Much of the magazine and book materials read are of fair to good quality. For instance, discrimination is exercised in choice of books for book club members. And many of the paper-bound reprints are of good quality. It is quite probable that practically all reports on the reading habits of the population give an inadequate picture of the amount of reading done. Perhaps the findings of Link and Hopf (121) should be counted on the side of gratifying evidence rather than as one more sample of the familiarly encountered indictment of reading habits. Thus, 50 per cent of the population, they found, were active book readers. And, of the books read, 37 per cent were non-fiction and 58 per cent were fiction. Another survey (132) revealed that reading was a favorite activity for 40 per cent of the people, but that more time was spent reading newspapers and magazines than books.

Americans, then, do have the habit of reading a good deal though the quality of much that is read is poor. A program of guidance is needed to increase still more the voluntary reading activities of both

children and adults. In addition the guidance program should aim to broaden interests and improve tastes. The situation is hopeful in the school because it has been shown that whenever a thorough-going program for improving tastes is undertaken, desirable improvement results. As a matter of fact, teachers should be gratified that most people do consistently read something, and most would agree that an appreciable amount of what is read seems of good quality. But we must not blind ourselves to evidence that too frequently reading interests are narrow and the materials read are of low-grade quality. A further move in the proper direction is possible if the schools are willing to meet the problem squarely. Parents, libraries and other agencies can, of course, help the schools materially in a coöperative program to improve reading tastes.

The reading of comics

Reading of the so-called comics presents important problems in reading interests and tastes. And it is a question that is sure to come up whenever reading problems of children are discussed. Much survey data and a wide variety of opinion concerning the reading of comics have appeared in print. Fairly comprehensive analyses of these data and views with implications for guidance in reading are given by Smith (153), Russell (146), and Adams, Gray and Reese (1). It is generally agreed that little is gained by wholesale denunciation of comics and by banning them from classroom and home. This unrealistic policy is likely in many instances to lead to secrecy in obtaining and reading them. However, that does not mean that nothing can be done to stem the tide of their influence.

We admit, to begin with, that comic magazines and comic strips are here to stay, at least, during the foreseeable future. There can be no doubt about their popularity. Comic strips appear in nearly every daily newspaper, and 15 to 20 million copies of comic magazines are sold each month. The trend has been toward a rapid increase in sales over the years. More than 90 per cent of children at elementary school ages read comic magazines regularly. Furthermore, comics appeal to a considerable portion of high-school and college students as well as to other adults. In terms of interest and

tastes, the mere reading of comics is not the more serious aspect of the problem. Worse is the handicap to growth of interests and tastes produced by the tendency among some children to limit recreational reading to the comics.

There is a lack of agreement, however, even among psychiatric workers, juvenile-court judges and other child specialists, concerning the effects of comics. In the first place there are of course wide differences in the contents of different comics. Materials vary from light humor (Walt Disney Comics, and so on) to those with avowed educational aims (True Comics, Classic Comics, and so on) to those with extreme emphases on crime or sex. As Smith (153) points out, possible harmful effects of comics seem to depend upon which comics and which child we are thinking of. To reach a decision, parents and teachers need to know the personality structure of their children and which comics they are reading. There is a fair consensus that the well-balanced, wholesome personality will be unharmed by any comic material. But excessive reading of the "undesirable" (sex, crime, extremely unreal adventure) comics by severely maladjusted children may be quite harmful.

Evaluations of the influence of comics upon reading have been made by Strang (164), and by Russell (146). Appraisal of alleged influences reveal a number of ways in which the excessive reading of comics may well hinder normal progress in either reading proficiency or in development of interests and tastes:

1. *Restriction of reading experiences.* There is likely to be an exclusion of the possible benefits toward broadening interests and improving tastes that come from reading a wider variety of materials.

2. *Avoidance of adequate reading.* The less able readers may concentrate upon picture context with little or no attempt to read the verbal material.

3. *Lack of reality.* Little understanding of activities in real life is acquired by reading most comics, since the adventures depicted are far removed from reality.

4. *Perceptual difficulties and visual fatigue.* In most comics the print, the paper, and the brightness contrast between print and

paper are so bad that reading them becomes a severe perceptual task, involving the danger of eye-strain.

5. *A vehicle for unfortunate propaganda.* Racial and national prejudices may be enhanced by some comics. Furthermore, invalid or partially erroneous notions of moral, ethical, political, and other concepts are promoted by them at times.

Certain other factors of comic magazines are considered to be favorable to reading progress, or are at least not objectionable. Some of these are:

1. *Supplementary reading.* Comics provide supplementary reading experience which is pleasurable and relatively easy (fifth to sixth grade).

2. *Vocabulary development.* Most of the vocabulary used is standard English. Comics employ a wide range of vocabulary terms, many of which are encountered in other reading. There occurs, therefore, both extension of vocabulary and desirable repetition of words needed in other reading situations.

3. *Motivation.* Reading comics may be a first step toward establishing a habit of extending reading beyond what is done at school, that is, seeking supplementary reading voluntarily for enjoyment.

Comics and guidance

A relevant question is: Just what can teachers do about comic books? In the first place the teacher should accept the fact that schoolchildren do read comic magazines and will continue to do so irrespective of any obstacle or prohibition she may try to impose. So guidance should be chiefly a matter of establishing some degree of discrimination toward them, building up a preference for the better or more acceptable comics, relating the subject matter of comics to what is in books of recognized worth, using comic magazines to motivate retarded readers, and employing interest in comics as a point of departure in a sequential program for developing other interests and tastes.

Appraisal and Discrimination. It has been shown by Denecke (36) that guidance in the intermediate grades can achieve a helpful degree of appraisal, discrimination, and evaluation when a class

undertakes a coöperative study of comics under supervision. Interesting points, monotonous trends, variety of humor, degree of wholesomeness, degree of accuracy, and relation to reality can be examined. Denecke's fifth-grade group, through discrimination and evaluation of a series of comics, were able to distinguish three relatively unique types of comics: those providing what is on the whole wholesome information, as in *True Comics*; humorous or amusing comics as those of Walt Disney; and those with a strong emphasis upon crime, murder, hatred, and revenge. Training for discrimination of the degree of reality depicted in comic stories has a legitimate place in this kind of study where teacher and pupils coöperate.

Preferences Among Comics. Since the content of comic magazines varies greatly in quality and consequently in desirability as reading matter for children, it would seem self-evident that comics which employ better language, and which avoid emphasis upon crime and sex while giving wholesome information, some of which is organized to improve reading proficiency, are the more desirable kind for children to read. The teacher can cultivate transfer of interest from undesirable to the more desirable comics by providing for a wide sampling of comics, and by guidance in discrimination and evaluation. Frequently, getting the child acquainted with a more desirable comic plus social approval will provide sufficient incentive to get him to choose and to read the better ones.

Subject Matter in Comics and Other Books. There are short stories and books which have stood the test of time that contain characters, settings, or plots similar to those in comics. Also they depict episodes as exciting as those in comics. For example, we have the pirates in *Treasure Island*, or animals in *Bambi*. The teacher who knows both comics and good literature, can frequently stimulate the child to seek additional related stories in better books by calling attention to similarity in materials and by seeing to it that the better books are available.

Using Comics to Motivate Reading. Occasionally it is possible to initiate voluntary reading for enjoyment in comics when the child will pay no attention to other materials. Reading of comics, therefore, can become the first step toward habitual recreational

reading. Also, comics frequently can be employed to good advantage with retarded readers. The "surplus" of pictorial context aids word recognition and sentence comprehension. The straightforward, brief dialogue is especially attractive to slow readers. In general, the whole pattern of the comic story magazine is highly interesting to most children.

The sequential program in taste

The first step in any program to develop broader interests and better tastes in reading involves appraisal of a child's present pattern of interests and level of taste. If any program to expand interests and improve taste is to succeed, the teacher should start where the child is, employing the present pattern of interests and taste as a base or foundation. Then a sound program of guidance, which necessarily must be highly individualized, will lead the child by *gradual* steps to a sampling of a wider variety of materials in order to broaden interests and also to come in contact with materials of better quality. One child may confine all voluntary reading to the comics; another to animal stories; another to factual material to gain information about a hobby; another to sentimental stories; and so on. No matter how much material is read, if the child confines his reading to a narrow field, his interests must be considered narrow and immature. And if the child fails to practice discrimination of quality, either by confining his reading to relatively "poor" literature or by exercising no choice between "poor" and "good" materials, he will fail to make appreciable progress in developing taste.

The guidance program should have two inter-related aims. One aim will be concerned with broadening the reading interests of the child in his recreational reading. By very gradual steps the child should be led to the place where he will choose and read for enjoyment materials from a variety of fields such as animals, adventure, communication, cultures of other peoples, science, and events in everyday life. The degree to which interests can be broadened will vary greatly from child to child. Nevertheless, systematic guidance will produce some progress in the case of any child.

The other closely related aim of guidance is to improve the quality of material which a child chooses for his recreational reading. There are materials ranging from very poor to very good quality in any field whether one is concerned with such areas as comics, science, animals, adventure, family life, or methods of transportation. Growth in tastes is bound to be slow. As soon as the child begins to exercise some discrimination in preferring better quality, progress in the right direction is under way. As in other aspects of reading, initial success in developing interests and tastes leads to additional progress. Thus the program moves on step by step in a sequential manner. Techniques of guidance to broaden interests and improve tastes have been discussed above.

Objectives: Interests and Tastes

The teacher is naturally concerned with what would be desirable if a program for developing interests and tastes could be achieved, and she is concerned also with what can be expected in practice when undertaking such a program. In general, it is a good thing to guide the child to the stage where he will voluntarily read extensively a wide variety of materials with understanding. The guidance program should move from relatively narrow interests to broader ones, and from a relatively low level of tastes to materials of better quality. With well organized guidance, all children will progress, but some will advance farther than others. The main thing is to get children to read *widely with enjoyment*. What is good taste for one child may represent a low level of taste for another. It is neither possible nor desirable to set up one level of taste to be achieved by all children.

Opinion varies with regard to reading of the "classics." In the first place, the books, stories, and poems considered to be classics now may be considerably different from those so designated by an earlier generation. Also, with the best of teaching, many of the so-called classics become meaningful only to the more able children in school. In general, it seems sensible to suggest that pupils be exposed to good literature, classics and others, under the most favorable circumstances. That is, under expert teacher guidance

the children should be exposed to the classics when they are able to read the materials with understanding.

Summary

The well-rounded reading program will provide instruction to develop broad and permanent interests and an appropriate level of taste. Guidance to achieve these aims should continue throughout all grade levels. Interests can provide strong motivation for learning to read. The guidance program endeavors to broaden old interests and to establish new ones. And, to a large degree, taste in reading depends upon interest patterns. It is the quality of what is chosen for reading within a field of interest that represents taste.

A criterion of good taste in reading is not easy to establish. Improvement in taste is relative to the level at which the individual finds himself. Although progress is always slow, well organized guidance can lead to *improved discrimination and choice of reading material*. Factors which condition the development of tastes include reading proficiency, interest patterns, amount of wide reading, favorableness of environment, and skill of the teacher. Although many deplore current reading tastes, there are indications that a fair per cent of the population read considerable material, much of which is good. Nevertheless, a program of guidance is needed to increase still more voluntary reading activities of the better sort among both children and adults. It has been shown that well conceived and executed programs in the elementary school have produced desirable improvement in reading tastes.

The reading of comics presents special problems in reading interests and tastes. Ways in which excessive use of comics may hinder normal progress in reading proficiency and in the acquisition of reading interests and tastes include restriction of reading experiences, representation of pictures untrue to life, printing that is difficult to read, and formulation of unfortunate propaganda. On the other hand, a wise choice of comics can furnish easy and interesting supplementary reading, promote vocabulary development and provide motivation to do voluntary reading. Since comics

are here to stay, it seems best to guide children to choose and read the more acceptable ones than to prohibit their use.

Selected References

- ADAMS, Fay, GRAY, Lillian, and REESE, Dora, *Teaching children to read*. New York: The Ronald Press Company, 1949, chap. 15.
- BOND, Guy L., and WAGNER, Eva B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chap. 16.
- GANS, Roma, *Reading is fun: Developing children's reading interests*. New York: Bureau of Publications, Teachers College, Columbia University, 1949.
- LAZAR, May, *Guiding the growth of reading interests*. Educational Research Bulletin No. 8. New York: Board of Education of the City of New York, 1945.
- McKEE, Paul, *The teaching of reading in the elementary school*. Boston: Houghton Mifflin Company, 1948, chap. 17.
- RUSSELL, David H., *Children learn to read*. Boston: Ginn and Company, 1949, chaps. 12, 13.
- SMITH, Dora V., Literature and personal reading, *Reading in the elementary school*. The Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, chap. 10.
- WITTY, Paul, *Reading in modern education*. Boston: D. C. Heath & Company, 1949, chap. 2.

CHAPTER XVII

Appraisal of Growth in Reading

Appraisal of growth in reading involves an initial careful evaluation of reading abilities at any chosen time, such as at the beginning of grade three, and then again at subsequent periods as the sequence of instruction progresses. Reading attitudes, interests, tastes, and study skills as well as the basic and the special reading skills, must all be considered in the appraisal. Evaluation in relation to reading objectives and in relation to instructional procedures are included. In other words, ascertainment of the degree to which reading objectives have been achieved, and the organization of the teaching program itself so as to meet individual needs will depend upon periodic measurement of reading ability, in addition to the day-by-day checks and observations which the teacher makes. Good instruction requires a thorough-going program of appraisal of growth in reading.

Appraisal is Necessary

There are many reasons why appraisal is necessary for best progress in the development of reading proficiency. These reasons may be grouped into two categories: those concerned with achieving reading goals; and those concerned with guidance or adjusting teaching to individual needs.

The well organized reading program has clearly defined aims or goals to be achieved at each successive stage in development. In general, appraisal is concerned with progress, which is, at least in part, the outcome of instruction. More exactly, appraisal of

growth in reading is undertaken to determine the degree to which the goals specified at successive levels have been attained. This periodical appraisal is necessary if instruction promoting steady progress toward the next level in the sequential program is to be competently planned and carried out.

Appraisal is equally concerned with promoting guidance in individualized instruction, that is, in promoting best adjustment of instruction to individual needs. These needs vary from child to child and in the same child from time to time. The ideals of successful guidance cannot be achieved unless the teacher ascertains the level of proficiency that has been attained by the child in each specific skill. She can then adjust her instruction to insure that the child may proceed naturally in gaining just those proficiencies which experience specifies are requisite for progress to subsequent levels in the sequential program.

Appraisal and the Class Program. In Chapter XI, adjustment of the instructional program to the needs of individual children within the class was emphasized. This instructional adjustment in any grade depends upon appraisal of reading status at the beginning of the school year and at subsequent periods during the year. Knowledge of the wide range in reading proficiency to be found in any ordinary class, and knowledge of just where each child stands within that range, will provide information necessary for guidance in organizing the teaching program, for these reasons: (a) It helps the teacher to see clearly the instructional problems she faces, and at the same time provides information to guide her in the adjustments of her teaching which she is certain to have to make. (b) It furnishes the chief data necessary for grouping pupils in her class for reading instruction. (c) The adaptation of instruction to individual differences within a group cannot be done without this knowledge. (d) Intelligent selection and use of reading materials in a classroom is possible only when the teacher knows the distribution of reading proficiency of her pupils. (e) It helps the teacher to maintain a balance in instructional emphasis. For instance, it will reveal lack of satisfactory progress in some area or skill such as skimming, vocabulary meaning, or reading arithmetical problems, whereupon a shift in emphasis can remedy the deficiency.

Appraisal for Adjustment to Individual Needs. Once the selection of materials and organization of classroom instruction to fit the range of reading talent among the pupils is guaranteed, it is still necessary to utilize guidance in providing for the specific needs of each pupil. These needs are identified by appraisal. Thus one child is found to be deficient in sight vocabulary, another has failed to profit much from instruction in phonetic analysis, and still another does not phrase properly in oral reading. Remedial teaching to help those children with difficulties is possible only after diagnosis based upon an appraisal which defines the nature of the disability and indicates the corrective measures needed.

Nature of the Appraisal Process. Appraisal should make possible consistent as well as balanced growth in reading proficiency. Whether concerned with the needs of her class as a whole or with the needs of specific individuals in her class, the teacher must base her guidance upon thorough-going appraisals.

Appraisal is not a one-time event but a continuing process. When children enter a class for the first time their individual level of reading proficiency with respect to each of the features we have mentioned is revealed by an examination and evaluation of the cumulative records, observations, ratings and measurements which come to the teacher when the child joins her class or are made by the teacher herself. These provide the bases for selecting materials, organizing instructional procedures, defining objectives to be achieved, and planning individual guidance. In addition to the more or less day-by-day appraisal through observation of performance and through checking by means of tests made by the teacher, more extensive appraisals are made periodically. The latter serve to evaluate progress toward goals and to provide information for regrouping of pupils, for choosing new materials, for shifts of emphasis in instructional techniques and for guidance procedures in instances where normal progress has not occurred or where new difficulties have appeared.

considered. So any appraisal of the pattern of a child's reading behavior must be concerned with several aspects of growth. Nevertheless, utilization of today's standardized measuring devices and various informal procedures of observation and measurement make it possible for the teacher to obtain a fairly comprehensive picture of a child's reading strengths and weaknesses.

Areas of Appraisal

Since achievement in one area of reading proficiency may not be closely related to achievement in other areas, it is not sufficient to measure one alone. To obtain a satisfactory picture of the pattern of reading development, there should be appraisal of growth in each of the main areas. The formal classification into areas and the terms employed to designate each of the main areas vary according to local usage. Here the classification of areas we employ is that used in the preceding sections of this book. They are: (1) word identification and recognition, (2) vocabulary meanings and concepts, (3) comprehension, (4) rate of reading, (5) study skills, (6) specialized reading skills, (7) oral reading, (8) attitudes, and (9) interests and tastes.

Appraisal is made quantitative when the growth in respect to some reading function from one evaluation to the next is noted. Such evaluations of reading status and appraisals of growth should be made frequently enough to provide the teacher with all the information which she requires for guidance as she goes about her instruction. Only when this information is available is it possible to organize instructional procedures which will promote well-rounded progress in each of the many phases of learning to read.

In addition to these periodic appraisals, there are the more or less constant day-by-day appraisals associated with the teaching of reading. Besides observation of pupil responses, the teacher makes use of workbook tests and self-made tests to evaluate a pupil's success in mastering what he is being taught at the moment as well as to detect deficiencies of longer standing. Information gained by these less formal kinds of appraisal is necessary if the teacher is to adjust instruction to individual needs. Certainly any dependable

information bearing upon growth in any aspect of reading, irrespective of how that information is obtained, can contribute in a useful way to appraisals.

Techniques of Evaluation

A technique of evaluation of reading proficiency is a method for obtaining knowledge of a child's reading status in one of the eight areas listed above. Appraisal of the information from the different areas will reveal the child's pattern of growth in reading since the *previous evaluation was made. The types of information found most useful for appraisals are derived from standardized tests, informal tests, teacher observation, questionnaires, and records of various kinds.*

Standardized tests

Standardized tests are measuring devices of proved reliability and validity. They furnish norms or standards of achievement for a specific series of school grades. Ordinarily they are readily scored and usually *after a moderate amount of experience, the scores are easily interpreted by the teacher.* A reliable test is one which yields highly consistent performance when the test is repeated, that is, a child achieves about the same level of performance if he repeats the test within a short space of time. A test is valid when it yields a true or accurate measure of that aspect of reading for which it was designed, such as vocabulary knowledge. Norms are established by giving the test to sufficiently large and representative groups of children. Then the mean scores achieved at successive grade levels are computed and listed in tables. When a standardized test is used, it is possible through reference to the norms to ascertain the grade level of achievement of a pupil or of a class. By this means, strengths or weaknesses are revealed in word recognition, vocabulary meaning, reading for details, speed of comprehension and the other aspects of reading performance. Norms represent average performance. Deviation from average performance can be expected from many pupils.

There are two general types of standardized reading tests

available: the *survey* test and the *diagnostic test*. The survey tests, such as the *Gates Reading Survey* (see list of tests at end of next chapter), are used primarily to obtain a pupil's level of achievement in such basic reading abilities as vocabulary, comprehension, and speed. The diagnostic tests, which furnish data for guidance in reading instruction, enable the teacher to discover a pupil's strengths and weaknesses in such specific skills as word perception, understanding sentences, and noting details. The *California Reading Tests* by Tiegs and Clark are diagnostic tests. Actually, there is no clear-cut division between the survey type and the diagnostic type of *group* reading tests. Many survey tests provide information useful in individual diagnosis and vice versa. For instance, the *Gates Basic Reading Tests* which measure four specialized kinds of reading ability are useful both for survey and diagnostic purposes. However, certain *individual* diagnostic tests such as the *Gates Reading Diagnostic Tests* are highly specialized for diagnostic purposes.

The use to which scores on standardized tests and informal tests (described below) are put is important. Although it is necessary to know the grade levels of individual pupils in reading ability, the main use for test results is teacher guidance in adapting instruction to individual requirements. In other words, the most valuable uses of data obtained with standardized reading tests are for diagnosing needs of pupils. In fact, most manuals of directions which accompany reading tests contain helpful suggestions on how to use the test results for diagnostic purposes. Any user of a test can profit by a study of these suggestions.

The directions for administering a standardized test have been carefully, even painstakingly, arrived at so that the child taking the test can operate under the most favorable conditions for eliciting a valid measurement of his reading ability. All published norms have been obtained under the conditions of use prescribed by the standard directions. To make sure that the obtained scores are meaningful, therefore, it is necessary that the directions for administering the test be followed exactly as given. Too frequently, a teacher may deviate from the standard directions, not realizing the possible adverse effect of such changes upon the results and

therefore of her interpretation of their significance, when she uses published norms.

There are many standardized reading tests published. A list of representative tests is to be found at the end of the next chapter. They are not necessarily the best tests for every situation but they are commonly used tests. Bond and Wagner (16), Betts (7), Harris (91), Traxler (178), Wrightstone (193), and Witty (190) also give rather extensive lists of reading tests. Any school which is planning to use standardized tests, might well consult descriptions of tests, order sample copies, and examine these for suitability prior to ordering in quantity.

Informal reading tests

The two most common kinds of informal reading tests are workbook tests and teacher-made tests. They are informal in the sense that they are not standardized. These tests are employed for the day-by-day appraisals needed in individualized teaching. The workbook tests are concerned largely with measurement of word identification and recognition skills and vocabulary knowledge and comprehension. For the most part they measure the skills, vocabulary, and meanings presently taught in the accompanying basic reader. An analysis of responses to the test items will frequently furnish important information on sources of reading difficulties so that prompt remedial measures may be taken.

Workbook tests measure success with workbook materials. Since the workbook materials ordinarily constitute only part of the pattern of any daily lesson, the most satisfactory appraisal of daily progress can be made only if additional informal testing is done. This is accomplished by use of tests made by the teachers themselves. The types of items in these tests depend upon the individual teacher. To a large degree the make-up of these tests approximates that in workbooks and in standardized tests. Teacher manuals, which accompany series of readers, usually provide helpful suggestions on construction of test items. Aids of this kind with samples of items are given in the *Iowa Elementary Teachers Handbook* on reading (103) and by Gray (72). The test items are usually mimeographed or dittoed for use in class.

Due to manner of construction, the teacher-made tests are readily adapted to checking daily, weekly, or monthly progress in learning what is taught. Both workbook tests and teacher-made tests reveal strengths and weaknesses of pupils and thus provide information for guidance in adjusting instruction to individual needs.

Informal oral reading tests are especially useful for guidance in reading instruction. In fact, most teachers note and correct some errors in oral reading almost daily. A more systematic informal measure of oral reading proficiency can be obtained readily by observing performance while reading aloud selections in a carefully graded series of basic readers. The teacher works with the child individually and notes accuracy of pronunciation and degree of comprehension as the child reads selections in successive books in the series, progressing from easy to more difficult levels. Betts' different levels (7) are readily ascertained by this method. The level appropriate for extensive free reading requires accurate pronunciation of 99 out of 100 words, with at least 90 per cent comprehension in the case of factual and inferential questions. The instructional level requires accurate pronunciation of 19 out of 20 words and at least 75 per cent comprehension. When the child can pronounce only 9 out of 10 words and comprehends less than 50 per cent of the material, he is considered to be at a frustration level in reading.

In addition to evaluating the level of reading proficiency, the informal oral reading test can furnish information useful in guiding day-by-day instruction. In fact the informal oral reading test is almost a necessity for adjusting instruction to individual needs. A record of errors is made as the child reads materials orally. Analysis of the errors will disclose individual needs by revealing such sources of difficulty as inadequate use of verbal context, lack of skill in phonetic and structural analysis, insufficient use of clues to word form, and determination of whether the difficulty tends to be at the beginning, middle or end of words. In addition to revealing the source of difficulty, the informal oral reading test when repeated will indicate how fast the difficulty is being eliminated.

The use of workbook tests, supplemented by teacher-made tests, makes it possible for the teacher to maintain intimate contact with her pupils' progress in learning to read.

Teacher observation

Teacher observation of pupil behavior and pupil responses in the reading situation provides extremely important information for appraising growth in reading. As a supplement to test results, the information obtained by a direct study of the child is of great value not only for exploring reading attitudes, interests, and tastes, but also for following day-by-day proficiency in reading. *

The teacher by direct observation readily evaluates a variety of attitudes connected with reading. She perceives signs of eagerness and joy with which reading is approached, or, on the other hand, the indifference and distaste which spell avoidance reactions. Degree of anticipation for the free reading period which is ahead, for trips to the library, and for examining new books is noted. Participating in discussions and group projects is significant. Tendencies to demand meaning, to go to books for desired information, and to engage in wide reading for pleasure are also good signs to watch for. In general, attitudes connected with reading are best evaluated by the teacher who is alert in her observations.

Close watching shows the teacher how proficiently a child employs study skills. For instance, she can note how effectively he locates information and selects materials. She can also employ observation *for more or less continuous appraisal* of pupil success in learning what is being taught at the time. The knowledge obtained provides a basis for the shifts in emphasis required for adjustment to individual needs.

Through accumulated observations and test data a teacher becomes acquainted with members of her class. She comes to know much about each pupil's strengths and weaknesses, his attitudes, interests, and tastes. Occasionally the teacher, to better understand a pupil, will make use of one or more personal conferences. Such talks provide an opportunity to follow up leads derived from more general observation, to become better acquainted with the child, to fill in gaps with information not

detected in earlier observation, to gain more complete information on attitudes and interests, and to build for herself a place of confidence in the child's mind as his or her friend. The additional information that can be gained in personal conferences is particularly important for guidance in dealing with the shy, retiring child, with the over-acting frustrated child, or with any other child in difficulty. Occasionally the teacher may coöperate with specialists such as a physician, a social worker, or a psychologist, in a case study. A case study consists of a more elaborate investigation of strengths and weaknesses involved in a child's adjustment to the school and other situations. Ordinarily case studies are made by specialists. The teacher can improve her guidance by using the recommendations derived from a case study of one of her pupils.

Use of questionnaires

A variety of questionnaires may be employed to evaluate attitudes, interests, and behavior patterns that are concerned with adjustment to the reading situation and with progress in reading. Certain standardized questionnaires or inventories are available. In general, however, the informal questionnaire made by the teacher herself provides a more useful source of information for guidance purposes. This is because such a brief teacher-made questionnaire can be specifically related to the very aspects of reading which are at the moment at the focus of the instructional program.

Kinds of information which may be obtained by use of questionnaires include the following: (a) data concerned with social and emotional adjustment, (b) attitudes toward the school, teacher, other children, reading, and books, (c) nature of leisure-time activities with likes and dislikes, (d) preferences for kinds of books and other reading material, (e) kind, variety, and amount of reading done, and (f) impressions obtained from and reactions to different kinds of reading.

These and a number of other aspects of attitudes, interests, and tastes related to reading may be measured by teacher-made questionnaires. Even though they are not standardized, they can provide a pattern of information of great value to the teacher. This may be

employed for guidance in adjustment of instructional procedures and for obtaining evidences of desirable growth in reading interests and tastes.

Records

It is not safe for any teacher to depend entirely upon memory for coördinating and appraising the strengths and weaknesses of 30 to 40 individual children in her class. For this reason she should keep records, preferably of two kinds: anecdotal and cumulative.

When the significant aspects of informal observation are noted in anecdotal form, the result is called an anecdotal record. These notations deal with a particular child's behavior pattern. They describe some specific episode, or a reaction to a specific situation. For the most part such anecdotes are concerned with reading situations, or behavior related to reading. Although the anecdotes may later be employed in appraisal, they are written down merely as description of an incident. Examples: "Today for the first time Mary brought a book from home and shared it with the class;" "John is now making real progress in combining verbal context clues with phonetic analysis when he identifies new words;" "Nancy still refuses to try to sound out new words not readily identified by other clues." A series of these notes may provide an important supplement to other observations and measurements used in appraising growth in reading. In particular, they often aid the teacher in such evaluations as a child's adjustment to group work, to specific learnings (as to use of context clues), to reading before a group, or to the wide reading program.

When accumulated in usable form, certain data on a child constitute cumulative records. These data may consist of teacher's *records and observations, reports of conferences with parents, results of mental and educational measurement, anecdotal records, the report of a physical examination, information on interests, or records of special strengths and weaknesses.* Summaries of growth trends in reading inserted periodically by the teacher are valuable. When kept up to date, material in the cumulative record may be coördinated to evaluate patterns of behavior related to reading and to appraise growth in reading. Especially important is the long-

term pattern of behavior changes and reading development revealed by the cumulative records. It is in them that continuity of growth is readily discerned.

Teacher use of evaluation information

Various techniques of evaluation employed to obtain data for appraisal of growth in reading have been described. It is possible that no one technique is the most important. To some degree, different techniques of evaluation are used for different purposes. Nevertheless, appraisal of the total pattern of growth in reading is best achieved by coördinating the information from all sources of evaluation, for each technique of evaluation yields information which supplements what can be derived from other sources.

The important thing is not a test score, specific data from a questionnaire, or an anecdotal notation, but rather the integrated appraisal based upon these sets of information and the use to which that appraisal is put. The most important values of appraisal, as indicated at the beginning of this chapter, are ascertainment of the degree to which reading objectives are achieved, and provision of a sound basis for guidance in instruction to meet individual needs. There is little to be gained by collecting in a cumulative record-folder test scores, questionnaire results, and notes on observed behavior unless these data are used in appraisals. In addition to checking on progress toward achieving class objectives, the teacher is interested in the growth in individual patterns of reading, the strengths and weaknesses in these individual patterns, and in finding out whether her individualized teaching is producing progress toward elimination of the weaknesses.

Appraisal of Level of Reading Proficiency

One aspect of appraisal is the discovery of the level of proficiency at which a child can read. And progress in proficiency is determined by an appraisal of growth from initial to subsequent measurements made at periodic intervals.

Reading proficiency is determined by the use of survey tests (see above). These tests are designed to yield fairly accurate measures

of the level of proficiency at which a child can read. The norms ordinarily give grade equivalents for the scores obtained on the tests. Thus, in the *Gates Advanced Primary Reading Tests*, an obtained score of 19 for paragraph reading, corresponds to a reading grade of 3.5. This means that the score is equivalent to that made by the average child who is half way through the third grade. Although reading-age equivalents of obtained scores are sometimes also given in terms of other norms, *use of the reading-grade scores is more common* and is preferred by most teachers. These survey or classification tests ordinarily contain measurements of word meanings and comprehension of sentences or paragraphs, or both. In addition, some of the survey tests measure speed of reading, that is, they measure the rate of comprehension.

Results on survey tests reveal the proficiency level of the class as a whole. For instance, if the grade status at the time of testing is 3.2 (that is, the class is two-tenths of the way through the third grade) and the average of the reading-grade scores obtained by members of the class is 3.7, this class is on the whole superior to the average class by about one-half a grade.

Survey reading tests also reveal the proficiency level of each pupil in the class. Examination of the grade scores will reveal whether a pupil is below, at, or above the grade level at which he is located. This information is a valuable aid to the teacher who wishes, as she will, to get better acquainted with the class, and is a *help to her in organizing instructional procedures to take care of the different levels of reading proficiency.* It is an aid also in *identifying pupils in need of a more thorough diagnosis to ascertain their degrees of retardation in reading.* Finally, growth in proficiency is checked by repeating the survey test after an interval of instruction.

A final word of caution concerning the use and interpretation of norms is perhaps in order at this point. The grade equivalents of obtained scores on reading tests represent average achievement of pupils of a particular grade status. These averages are not ideal levels of achievement. Presumably, excellent instruction could raise performance from the average toward the ideal. Furthermore,

a child who measures at grade in reading proficiency may not be reading up to his own capabilities.

Examples of tests suitable for appraising level of reading proficiency are the *Gates Primary Reading Test*, *Stone Webster Classification Test in Beginning Reading*, *Gates Reading Survey*, and *Stanford Reading Test*.

Summary

Determination of the degree to which reading objectives are achieved and organization of the instructional program depend upon appraisal of growth in reading. Appraisal should be both periodic and continuous. Periodic appraisal evaluates progress toward achieving instructional goals, while day-by-day appraisal provides information for adjusting teaching to individual needs. Several techniques of evaluation are used to obtain information needed for appraisal. The more important of these are standardized tests, informal tests, teacher observation, questionnaires, and records of various kinds. Appraisal of the total pattern of growth in reading is best achieved by coördinating the information from all sources of evaluation.

Selected references on appraisal of growth in reading are listed at the end of Chapter XVIII.

CHAPTER XVIII

Appraisal of Growth in Reading (Continued)

In the previous chapter we took up the need for appraisal of growth in reading and the techniques of doing this. The present chapter moves on to the appraisal of progress in specific areas of reading. Following this, suggestions will be found for record keeping and for choosing from among available standardized tests.

If she is to adjust her instruction to individual needs of pupils in her class, the teacher must ascertain the proficiencies or deficiencies of each child in the various areas of reading such as word recognition and vocabulary knowledge. In order to achieve satisfactory appraisals, it is necessary at one time or another to employ all the techniques of evaluation described in the preceding chapter. Some of these are more appropriate than others when progress or deficiencies in certain special areas are the focus of interest.

Appraisal of Word Identification and Recognition

The appraisal of progress in the child's ability to employ word identification clues and techniques is for all practical purposes a continuous affair. The day-by-day adjustment of instruction to individual needs is guided by such appraisal.

In these appraisals the teacher seeks information on progress in mastering use of the clues and techniques discussed in Chapter VIII. These include evaluation of skill in using picture clues, word-form clues, verbal context clues, various aspects of phonetic and structural analysis, and use of the dictionary. At any specific

time the appraisal is usually confined to those aspects of the clues and techniques then being taught. For example, when syllabification is being taught, much of the appraisal is concerned with discovering how well the children are mastering syllabification as a tool for unlocking new words. At the same time the teacher will, of course, take note of other deficiencies that she may run across. Periodically the appraisal will be concerned with evaluation of progress over a longer period of time.

Techniques employed for appraising word identification and recognition include teacher observation of pupil responses during class work, use of workbook tests and informal tests made by the teacher, or exercises appropriate for evaluating mastery of what has just been taught, and formal standardized tests. The items in both the formal and informal tests consist largely of matching and multiple-choice questions. Matching a word with a picture is one common type of item. The picture may represent an object, a situation, or an action. Many exercises in workbook tasks may be profitably used in evaluating word recognition skill. Both workbook materials and the suggestions in teacher's manuals which accompany series of basic readers provide examples of kinds of items and procedures to guide the teacher in constructing home-made tests for evaluating proficiency in identifying and recognizing words.

One of the best methods for evaluating efficiency in the use of word recognition clues and techniques is the oral reading test. Observation of procedures used in attacking new words, in the self-correction of errors, together with an analysis of the types of errors made by the child during his reading will provide a wealth of information on how well the child comes to grips with the text unaided. Data are readily obtained on the child's degree of proficiency in his use of context clues, work-form clues, phonetic analysis, and structural analysis. Most satisfactory results are obtained with such standardized tests as the *Gray Oral Reading Paragraph Test*, the *Gray Oral Reading Check Tests* or the oral reading section of the *Gates Reading Diagnostic Tests*. Informal oral reading tests also may be used. Or much information useful for appraisal of word recognition skill can be procured by observ-

ing oral reading of basic text materials which are somewhat more difficult than the child's general instructional reading level (see above). The observation and recording of errors for analysis should follow the procedure used in the standardized oral reading tests.

The rôle played by development of a sight vocabulary is important throughout the grades. A good measure of word recognition for the sight vocabulary in the primary grades can be obtained by the *Dolch Basic Sight Word Test*. Many standardized reading tests include sections for measuring word recognition. These tests provide information on level of maturity in recognizing words. They should be employed in evaluation at appropriate intervals, not only to ascertain grade level in word recognition, but also to appraise amount of growth over a period of time. Two representative tests which measure word recognition are: *Manwiller Word Recognition Test*, and *Gates Primary Reading Test*. (See end of chapter for bibliography of reading tests.)

Appraisal of Vocabulary Growth

It is ordinarily possible to appraise growth in understandable vocabulary and in word recognition simultaneously because these two most essential aspects of vocabulary building are intimately related. The techniques of their evaluation and measurement are similar. As in the case of word recognition, teacher observation, informal tests, and formal standardized tests all contribute to appraisal of vocabulary growth.

It seems probable, however, that teacher observation is not so satisfactory for evaluating vocabulary knowledge as for word recognition skill. This means that in day-by-day evaluations, there is a greater dependence upon informal vocabulary tests, whether made by the teacher or found in workbook exercises, in adjusting instruction in vocabulary to individual strengths and weaknesses.

The importance of vocabulary development is reflected in the heavy emphasis its measurement receives in formal standardized reading tests. Representative samples include: *Gates Reading Survey*; *Metropolitan Achievement Tests—Reading*; and *Stone-Webster Classification Test in Beginning Reading*. The information

accumulated from informal tests and observation should be supplemented periodically by results from such standardized tests as these. Tests for use in the primary grades ordinarily measure general vocabulary meanings. A few vocabulary tests in subject-matter fields are available at the higher grade levels.

Appraisal of Growth of Comprehension

Although all techniques of evaluation may be employed to appraise growth of comprehension, results from informal and formal tests are most useful. Some aspect of comprehension is measured in almost every standardized reading test, and in various tests, several aspects are measured. In addition to sentence and paragraph comprehension, other aspects of comprehension fall under such headings as "ability to understand directions," "comprehension of details," "larger meanings," "interpretations," and so on. As in other areas of reading, the formal standardized tests are most useful for appraisals of growth over an interval such as three months, a semester, or a school year. An accumulation of scores makes it a simple matter to trace growth in each of the comprehension skills measured. Relative proficiency in the different kinds of comprehension is revealed by reference to norms. Entering a child's measured reading abilities, including comprehension, in tabular or profile form is helpful and quickly indicates where needed acceleration might be secured by additional instruction.

The teacher, however, will need more frequent evaluation of progress in comprehension skills than she is likely to secure by the use of standardized tests. In order to adjust emphases in her instructional program, to move ahead at a satisfactory pace, and to adapt her instruction to individual needs, the teacher will have to carry on a more or less continuous evaluation of the degree to which the children are acquiring the comprehension skills. Although she depends somewhat on her observations, her evaluation will be obtained mainly by the use of informal home-made tests and workbook tests and exercises. This day-by-day evaluation will reveal how well the class is mastering the comprehension skills they are being taught, in addition to disclosing individual difficulties

which require additional individualized guidance for their elimination.

This continuing appraisal process may be facilitated by a check list covering various aspects of the comprehension skills. The skills represented by the items on the check list can be rated as frequently *as desired* and the successive ratings consulted in making appraisals. Thus the standing of a child in the item "Understands relation between sentences in a paragraph" can be rated 1, 2, or 3 to indicate that the child is making less than adequate, average, or unusual progress in this aspect of a skill. The number and variety of the items to be rated as well as frequency of rating depend upon the teacher and the reading objectives she chooses to emphasize in her teaching.

The comprehension skills requiring appraisal are those discussed in Chapter X, such as sentence comprehension, skimming, and *apprehending the main idea*. Measurement of some comprehension skills such as skimming and critical evaluation is not attempted ordinarily in standardized tests. In these instances, evaluation depends entirely upon observation and informal testing as discussed above. A large variety of standardized tests measure one or more kinds of comprehension. Several representative tests are listed at the end of this chapter.

Appraisal of Rate of Reading

The rate at which printed words can be identified can have little significance unless identification is accompanied by comprehension. The term *rate or speed of reading* as used in this book signifies, therefore, *rate or speed of comprehension*. Factors which influence rate include *clarity of comprehension, difficulty of the material*, and reading purpose. Flexibility in adjusting rate of reading to the material and the purpose for which it is read is the mark of proficient reading. It should be emphasized that reading at a rate unduly slow for any specific kind of material is a handicap.

The teacher's task in evaluating rate of reading is threefold: She must appraise whether (a) the rate is appropriate for the material and the purpose, (b) reading in a particular situation is

so slow that it represents dawdling, (c) the pupil has sufficient flexibility in adjusting his speed to fit the requirements of the material and the purpose of the moment. In other words, it is not enough not to dawdle; the pupil must be able to read rapidly when that is appropriate, and slowly and carefully when the latter is called for.

Rate of reading one kind of material cannot be counted on to be a good indicator of rate in another kind. The chances are not great, for example, that the pupil who is fastest in reading a story is fastest in reading geography or science; or that the one who is next to fastest in one is also next to fastest in another, and so on. To ascertain rate of reading in content material such as history, science, or geography, it is necessary to measure rate while reading material in the specific field in which one is at the moment interested. In other words, rate of reading relatively easy material like that measured in most standardized "speed of reading" tests for elementary school students is not a good indicator of rate of reading other kinds of material. Standardized reading tests, therefore, are of relatively little use to the teacher in appraising rate of comprehension in reading.

The teacher must depend for the most part upon teacher-made or teacher-selected tests for evaluating rate of reading. It is a relatively simple task to pick out representative passages from different kinds of material to be read for one specific purpose or another. The test is timed and the number of words read per minute is obtained. A sample of three to five minutes in length is desirable. The pupil should clearly understand the comprehension requirements before starting on the test and his reading should be checked for comprehension. Testing should be frequent enough to provide guidance for instructional procedures.

When a pupil is reading too rapidly or too slowly for the requirements of a specific material, or for a particular purpose, instructional procedures to correct the situation should be instituted. One of these is to inform the child of his scores (number of words read per three minutes) on successive tests, a procedure which usually motivates children to read faster. To slow reading down to a pace which is proper for the requirements of the ma-

terial or for a particular purpose, the teacher can insist upon a high level of comprehension. At the same time she takes pains to point out to the pupils that such a level of comprehension can best be achieved by reading more carefully and more slowly.

Ordinarily training at the elementary-school level to increase *speed of reading as such* probably is not justified. When a child reads at a rate considerably less than optimum for a given material and a particular purpose, it is best to seek the causes of the excessively slow reading. The best way to teach a child to read at an appropriate rate is to furnish him with the concepts and techniques by which he can fully understand what is to be read. In general, the emphasis should be upon developing clear comprehension in reading. When this is achieved, and a child reads a given material with the accuracy and understanding demanded by the purpose, in most instances the rate of reading will reach a satisfactory adjustment more or less automatically. In summary, the emphasis ordinarily should be upon achieving accuracy and understanding, while adjustment of rate is allowed to take care of itself.

Appraisal of Study Skills

Study skills, such as those discussed in Chapter XIV, are reading skills and should be appraised. All the techniques discussed above are useful on occasion for this evaluation. In general, however, observation by the teacher and the informal tests she constructs tend to be most useful and, therefore, the most used, for this kind of appraisal. In the primary grades only observation and informal testing is possible at present since the standardized tests of study skills have been worked out for use in the higher grades only. As with other areas of reading, there should be fairly continuous evaluation of growth in study skills through use of informal observation and teacher-made tests as well as periodic evaluation (in upper grades) by means of standardized tests where the latter are available.

Appraisal of study skills through informal observation occurs at all grade levels. Observation of day-by-day performance in-

dicates the quality and the promptness of the choices which the child makes in using the table of contents or the index in books, and how skilfully he adjusts to library usage when he wants to find material pertinent to his interests or to select books and subject matter relevant to a specific topic.

In addition to observation the teacher may present a practical test situation which requires one of the specific study skills, and check the proficiency with which the child adjusts to the situation. Use of a table of contents, an index, or selection of pertinent references for use in a study unit may serve this end.

As the child progresses beyond the primary grades, evaluation of study skills can become more specific. Speed and accuracy may be checked as he uses indexes, library card catalogs, the dictionary, or an encyclopedia. It is also possible to note a child's proficiency in finding a specific fact in a textbook or a reference book, or his skill in selecting and evaluating pertinent information.

Much workbook material is designed to develop one or another specific study skill. The exercises may be concerned with use of an index, or a dictionary, or with the selection of relevant information. When these exercises are coördinated with class instruction, checking of day-by-day performance reveals the degree of progress in use of the particular skill. Similar exercises or tests may be constructed by the teacher. In the upper grades, the practical test situations presented to the pupils can become more complex. Development of skill in reading tabular material, graphs, charts, and maps may be evaluated day by day through observation, teacher-made tests and practical situations.

A few standardized tests are available for evaluating grade standing or relative ability in several, but not in all, of the basic study skills. This type of evaluation, besides being highly objective, is desirable for periodic measurement of progress and for appraisal of individual and class performance in relation to norms and objectives. Samples of standardized tests which include measures of study skills are: *Iowa Silent Reading Test*; *Iowa Every-Pupil Tests of Basic Skills, Test B*; *SRA Reading Record*.

As with other areas of reading, appraisal of study skills is most useful for teacher guidance. Strengths and weaknesses of pupils

are discovered and the indicated adjustments are made by means of group instruction or more highly individualized teaching.

Appraisal of Specialized Reading Skills

Evaluation of the specialized reading skills required for successful reading of material in the content fields must be made largely by observation and other informal techniques, since few tests are available for measuring these skills. The only aspect of reading in a content field that is ordinarily measured in standardized tests is vocabulary knowledge.

Observation of daily performance, use of teacher-made tests on acquisition of skill and understanding, and standardized achievement tests will reveal whether a child is making satisfactory progress in arithmetic, in geography, or in some other content subject. Lack of satisfactory progress in a content subject may be due to deficiency in the special reading skills required. In seeking out the cause of the difficulty, the teacher should check the pupils' ability to read the subject-matter material. It is understood that the teacher will also keep an eye on other factors such as *motivation or clarity of purpose*.

Reading difficulty in a subject-matter field may merely reflect inadequacies in the mastery and use of the fundamental and specialized reading skills, abilities, and procedures such as word recognition techniques, general vocabulary knowledge, comprehension skills, or study skills. If these skills, abilities, and procedures have been satisfactorily developed in general reading, the difficulty in the special subject matter is more likely to be due to either one or two other factors. The pupil may be deficient in the ability to adjust these skills, abilities, and procedures to the specific requirements and purposes of the particular subject matter. Or he may lack the necessary meaningful technical vocabulary and related concepts. The requirements of a technical vocabulary and some of the difficulties involved in developing such a vocabulary have been considered in Chapter XV. Observation of pupil responses in classwork, in teacher-made tests, in workbook exercises, *supplemented if necessary by personal conferences*, will

reveal the degree of proficiency in technical vocabulary and in the handling of related concepts. If standardized tests of technical vocabulary knowledge are available, they may be employed for periodic checking to ascertain grade standing of the pupils.

The adjustments required for effective reading in the content fields vary greatly. The child who attempts to read science or mathematics as rapidly as he reads stories, will get into trouble. The former require slow analytical reading. The pupil's knowledge of how and when to apply skills to satisfy the requirements of the materials and to achieve the purpose of a particular reading situation, must be noted by the teacher. Appraisals should be frequent enough to detect deficiencies before they become serious.

Both the teaching of reading and the evaluation of reading progress in the content fields tends to be far from satisfactory. This is due to the lack of a thorough knowledge of teaching and measuring techniques appropriate to this area. For the present the teacher must depend largely upon her own efforts and ingenuity in devising and using informal techniques of appraisal.

Appraisal of Oral Reading

A large proportion of high-school students give a mediocre performance, or worse, when they attempt to read orally. This may be due largely to their failure to enjoy the benefits of periodic appraisal and guidance in this kind of ability during the elementary school years. The desirability of developing skill in oral reading has been stressed at several places in this book. The guidance necessary in adjusting instruction to individual needs in developing oral reading is possible only if there is frequent appraisal.

The use of standardized oral reading tests to locate difficulties in word recognition have been touched on above. Scores on these tests do not show up certain factors of great importance in reading aloud to an audience. The teacher must depend mainly upon informal observation and testing situations which she devises herself for evaluating skill in oral reading as a form of communication. The day-by-day observation of performance will provide much useful information. This should be supplemented by in-

formation derived from more systematic observation and rating of performance while reading selected passages aloud. These passages should consist of relatively easy material and should contain considerable conversation, as in stories. For the most part evaluation should be made upon the reading of materials which the child has prepared for the oral presentation.

In oral reading before an audience the aspects which need to be observed and rated in appraisal of proficiency vary somewhat. The following list may be considered representative but not inclusive: accuracy of word recognition, enunciation, phrasing, volume or loudness, posture, expression, fluency, tension, rate, poise or confidence, voice quality, and rhythm or timing.

The teacher will find it helpful to rate degree of skill on a list of sub-topics under each aspect of oral reading. Such a list of sub-topics as the following may be used as a check list:

Posture habits during oral reading:

- a. Posture satisfactory
- b. Stands improperly
- c. Holds book improperly
- d. Moves head from side to side
- e. Follows line with finger

To note progress in proficiency in oral reading, it is desirable to record the results of periodic ratings. Anecdotal records derived from daily observation can provide valuable supplementary data for the appraisal.

tion, and toward class activities. Various habits developed in learning to read, such as thoroughness in work-type reading, also must be considered.

The teacher, in evaluating attitudes, must depend largely upon day-by-day observations supplemented by occasional anecdotal records. In this way she can detect the presence or the bare beginning of undesirable attitudes and, repeating the process later, appraise the stages of development of desirable attitudes. At the same time, if necessary, steps can be taken to counteract or modify the undesirable attitudes. And where progress in developing desirable habitual attitudes seems unduly slow, instructional procedures can be modified to speed up progress. The appraisals will frequently reveal, naturally, that the rate of development is entirely satisfactory in the case of some attitudes. Observations for these appraisals may take place during regular class work or during a special assignment devised especially to get clear light on an attitude or group of attitudes which are judged significant. For instance an assignment may be devised to reveal a pupil's thoroughness in work-type reading, or his degree of independence in working on a unit project.

Appraisal of Reading Interests and Tastes

The nature of interests and tastes in reading and their inter-relationships were discussed in Chapter XVI. Evaluation of interests and tastes is neither simple nor easy. Nevertheless, evaluations are necessary if pupils are to receive teacher guidance in broadening interests and in developing more satisfactory tastes. The first step in any such program is to ascertain the present breadth and intensity of interests and the level of tastes. Subsequent appraisals will reveal the degree and quality of changes which may occur as a result of further experience and guidance.

Evaluation of interests and tastes is necessarily informal. The teacher employs day-by-day observation, individual conferences, anecdotal records, and teacher-constructed check lists of activities and preferences. Useful systematic inventories or check lists of preferred activities and interests have been organized by

Hildreth (95), Witty and Kopel (191), and by Witty and Coomer (190). Teacher-constructed inventories should provide for the listing of work and play activities, in addition to reading activities and preferences.

Much information can be obtained from reading lists kept by the child. These records may include what the child reads over a period of time, what books he owns, what stories he recommends to others for reading, or what books he takes from the library. Some evaluation is possible through observation of children's choices during free reading periods either in the school room or in the library.

Analysis of the data derived from these check lists and the various aspects of observation noted above will yield considerable information on interests and tastes in reading. Breadth of interests will be indicated by the varieties of activities and of reading carried out. Strength of an interest pattern is revealed by the time and effort expended upon a given type of activity or reading material. Although these appraisals of breadth and strength of interests are largely subjective, they are based to some degree upon quantitative data, for example, number of books owned or read or withdrawn from the library, or time devoted to certain kinds of materials. Appraisal of reading taste, however, is entirely subjective. Standards or criteria of taste or quality of reading are themselves established by subjective estimates. How well a pupil measures up to these standards also involves subjective appraisal. Nevertheless, the teacher's evaluation of pupil's reading interests and tastes will aid guidance in the instructional program.

Keeping Records

At various places in this book emphasis has been placed upon the keeping of records to facilitate guidance in teaching reading. A picture of a pupil's pattern of reading abilities and skills is obtained more readily when the results of tests, observation, check lists and the like are organized in a record form. A sample form (Fig. 2) is given on the following pages. Each teacher will probably wish to organize a somewhat different outline form to meet

FIG. 2. PUPILS READING EVALUATION RECORD FORM

Teacher _____

School _____

Name _____ Grade _____ Date of Birth _____

Record begun on (date) _____ at age _____

Mental Test	MA	CA	IQ	Date
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

I. Standardized Reading Tests

Test	Date Given	Score	Grade Equivalent
1. _____	_____	_____	_____
2. _____	_____	_____	_____

II. Appraisal Based Upon Standardized Test Results

Initial Evaluation: _____

Subsequent Evaluations: _____

III. Informal Evaluations

Word Recognition:

Vocabulary Development:

Comprehension:

Rate of Reading:

Study Skills:

Specialized Reading Skills:

Oral Reading:

Attitudes:

Interests and Tastes:

Additional Related Information:

her specific needs and then duplicate it so as to have a copy for each pupil in her class. Data and evaluations are entered at appropriate places. Under "Standardized Reading Tests" any desired number of oral or silent reading tests may be entered with results.

FIG. 3. PROFILE FOR READING ACHIEVEMENT
(Name of Pupil)

Grade Level	Actual Grade	CA: Grade	MA: Grade	Grade Equivalent: Reading Test Scores							
				Vocabulary *		Comprehension		Special Skills		Others	
				Test 1	Test 2	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
9.0											
8.5											
8.0											
7.5											
7.0											
6.5											
6.0											
5.5											
5.0											
4.5											
4.0											
3.5											
3.0											

* Vocabulary: Test 1 _____ Date _____

Test 2 _____ Date _____

Comprehension: Test 1 _____ Date _____

In Section II, brief notation can be made of initial and subsequent evaluations. In Section III, brief summary statements derived from informal observations, teacher-made tests, check lists, and so on may be entered from time to time. Under each part of Section III, sub-headings may be used. Observations on general trends, special difficulties, and so on can be made on the back of the record form or on additional sheets.

It is sometimes helpful in evaluations to enter results of stand-

ardized tests in a profile. Any teacher can construct a profile outline to fit the needs of individual pupils in her class. A sample (Fig. 3) is shown following the outline for the reading evaluation record. Dots or small crosses are entered in appropriate columns according to the pupil's actual school grade level, grade derived from chronological age (CA), grade derived from mental age (MA), and grade equivalents of the test scores. Successive points across the outline are then connected by lines. Inspection of the resulting profile will reveal trends which should aid evaluation of proficiency and appraisal of growth in reading.

In constructing the outline for the profile, note that provision can be made for two (or more if desired) tests in each area such as vocabulary or comprehension. Perhaps the teacher will have some test scores other than reading which she would like to show on the profile. These may be entered under "Others." The particular tests and the time at which they are given are identified below the outline as indicated.

The systematic keeping of records and their use for guidance purposes pay good dividends in promoting effective teaching. Some system for accumulating records in individual files is helpful.

Selection of Standardized Tests

As already noted, standardized tests, when well constructed, yield fairly accurate and reliable measures of various aspects of reading such as vocabulary and comprehension. They are employed to evaluate relative reading proficiency (that is, scores in grade equivalents) at periodic intervals such as at the beginning and end of semesters or of school years. While specific learnings are appraised daily by informal evaluations, the broader aspects of progress in reading are evaluated by means of standardized tests.

A well organized testing program is an essential part of reading instruction. Careful consideration should be given, therefore, to the selection of standardized tests so that a maximum amount of information may be obtained by their use. The over-all school program of reading instruction should be considered. This means

a coördination of the testing program from grade to grade. Tests should be selected accordingly. Other factors to consider in selecting tests: (a) aspects of reading measured by a test; (b) grade range in reading ability covered by a test to insure its appropriateness for the range of abilities in a given grade; (c) cost; (d) testing time; (e) availability of norms. Grade equivalents of scores are very useful.

In addition to what may be found in catalogs, descriptions and evaluation of reading tests are given by Traxler (178) and by Buros (21).

Below is a list of representative reading tests. For the most part they are commonly used tests. No attempt is made, however, to indicate some as better than others. To a certain degree the value of a test depends upon the particular situation in which it is to be used.

Reading Tests for the Elementary School

Note: Name of publisher is abbreviated. The key to abbreviations is given below. Prices may be obtained from the most recent catalogs which publishers will send upon request. The prices are not quoted here because they change frequently.

KEY TO PUBLISHING COMPANIES

- BP Bureau of Publications, Teachers College, Columbia University, 525 W. 120 Street, New York 27, N. Y.
- CTB California Test Bureau, 5916 Hollywood Blvd., Los Angeles 28, Calif.
- EMH E. M. Hale and Co., 320 South Borstow St., Eau Claire, Wisc.
- ETB Educational Test Bureau, 720 Washington Ave. S.E., Minneapolis 14, Minn.
- GP Garrard Press, 119 W. Park Ave., Champaign, Ill.
- HM Houghton Mifflin Company, 2 Park St., Boston 7, Mass.
- PSP Public School Publishing Co., 509-513 North East St., Bloomington, Ill.
- SC Stech Co., Austin, Tex.
- ST C. H. Stoefting Co., 424 N. Homan Ave., Chicago, Ill.
- SRA Science Research Associates, Inc., 57 West Grand Ave., Chicago 10, Ill.
- WBC World Book Co., 313 Park Hill Ave., Yonkers, N. Y.
- WPC Webster Publishing Co., 1808 Washington Ave., St. Louis 3, Mo.

REPRESENTATIVE READING TESTS

- California Reading Test* by E. W. Tiegs and W. W. Clark. CTB, 1950. Grades: Primary, 1-3; Elementary, 4-6; Intermediate, 7-9. Four forms. Time: 35-50 minutes. Reading vocabulary; various kinds of comprehension.
- Chapman-Cook Speed of Reading Test* by J. C. Chapman and S. A. Cook. ETB, 1924. Grades 4-8. Two forms. Time: 2½ minutes. Speed of reading easy material with comprehension constant.
- Chicago Reading Tests* by M. D. Engelhart and T. G. Thurstone. EMH, 1939-40. Grades 2-4, Test B; 4-6, Test C; 6-8, Test D. Three forms. Time: 42-45 minutes. Comprehension of words, sentences, and paragraphs. Rate of reading. Comprehension of maps and graphs added in grades 4-8.
- Detroit Reading Tests* by C. M. Parker and E. A. Waterbury. WBC, 1927. Grades 2-9. Two to four forms. Time: 5-8 minutes. Comprehension and rate.
- Detroit Word Recognition Test* by E. F. Oglesby. WBC, 1924. Grades 1-2. Four forms. Time: 5 minutes. Word recognition.
- Diagnostic Examination of Silent Reading Abilities* by A. Dvorak and M. J. Van Wagenen. ETB, 1939-40. Grades 4-6, Intermediate Division; 7-9, Junior Division; 10-16, Senior Division. Time: unlimited. Ten sub-tests providing scores on rate, vocabulary, and several types of comprehension skill.
- Dolch Basic Sight Word Test* by E. W. Dolch. GP, 1943. Assigned to no particular grade. Not timed. Recognition of the 220 words of the Dolch Basic Work List.
- Durrell Analysis of Reading Difficulty* by D. D. Durrell. WBC, 1937. Grades 1-6. Time: Approx. 60 minutes. Materials for individual diagnosis of reading difficulties.
- Durrell-Sullivan Reading Capacity and Achievement Tests* by D. D. Durrell and H. B. Sullivan. WBC, 1937. Intermediate, grades 3-6. Two forms. Time: 30-45 minutes. Word and paragraph meaning, spelling, and written recall. Primary test, grades 2-3, contains easier portions of intermediate test.
- Garvey Primary Reading Test* by H. S. Reed and M. V. Seagoe. CTB, 1936. Grades 1-3. Two forms. Time: Approx. 40 minutes. Word and phrase recognition, vocabulary, and comprehension.
- Gates Advanced Primary Reading Test* by A. I. Gates. BP, 1943. Grades 2-3. Three forms. Time: 40 minutes. Word recognition and paragraph reading.
- Gates Basic Reading Tests* by A. I. Gates. BP, 1943. Grades 3-8. Four forms. Time: Approx. 35 minutes. Reading to appreciate general significance, predict outcomes, understand directions and note details.
- Gates Primary Reading Test* by A. I. Gates. BP, 1943. Grades 1-2. Three forms. Time: 50 minutes. Word recognition, sentence and paragraph reading.

APPRAISAL OF GROWTH IN READING (Continued) 315

Gates Reading Diagnostic Tests by A. I. Gates. BP, 1945. Grades 1-8. Two forms. Time: unlimited. Materials for individual diagnosis of difficulties.

Gates Reading Survey by A. I. Gates. BP, 1939. Grades 3-10. Two forms. Time: 60-90 minutes. Vocabulary and comprehension plus measure of rate and accuracy.

Gray Standardized Oral Reading Check Tests by W. S. Gray. PSP, 1922. Grades 1-8. Five forms. Time: approx. 1-3 minutes. Rate and accuracy of oral reading.

Gray Standardized Oral Reading Paragraph Test by W. S. Gray. PSP, 1915. Grades 1-8. One form. Time: approx. 5-10 minutes. Rate and accuracy of oral reading. Analysis of errors used to diagnose reading difficulties.

Iowa Every-Pupil Tests of Basic Skills by H. F. Spitzer, E. Horn, M. McBroom, H. A. Greene, and E. F. Lindquist. HM, 1945. *Elementary Battery*, grades 3-5; *Advanced Battery*, grades 5-9. Four forms. Time: 55-90 minutes. Test A: Vocabulary and paragraph comprehension. Test B: Reading maps, use of references, index, dictionary, and alphabetizing (*Elementary*) or reading graphs, charts and tables (*Advanced*).

Iowa Silent Reading Test by H. A. Greene, A. N. Jorgensen and V. H. Kelley. WBC, 1943. *Elementary Test*, grades 4-8. Four forms. Time: 60 (?) minutes. Comprehension of words, sentences, paragraphs, rate of reading, skill in alphabetizing and indexing.

Los Angeles Elementary Reading Test by J. E. Ingraham. CTA, ———. Grades 3-9. Four forms. Time: 30 minutes. Paragraph comprehension.

Los Angeles Primary Reading Test by J. E. Ingraham. CTA, ———. Grades 1-3. Four forms. Time: 10 minutes. Comprehension of sentences and paragraphs.

Manwiller Word Recognition Test by C. E. Manwiller. WBC, 1935. Grades 1-2. Two forms. Time: 15 minutes. Word recognition.

Metropolitan Reading Tests by R. D. Allen, H. H. Bixler, W. L. Connor, and F. B. Graham. WBC, 1940. Grades 1, 2, 3, 4-6, 7-8 in different batteries. Three forms. Time: 30-70 minutes. Vocabulary and comprehension.

Monroe Diagnostic Reading Examination by M. Monroe. ST, 1928. Grades 1-6. One form. Time: approx. 45 minutes. Materials for individual diagnosis of difficulties.

Monroe Standardized Silent Reading Tests by W. S. Monroe. PSP, revised 1928. Grades 3-5, 6-8, 9-12. Three forms. Time: 45 minutes. Comprehension and rate of reading.

Nelson Silent Reading Test by M. J. Nelson. HM, 1929. Grades 3-8. Two forms. Time: 30 minutes. Vocabulary and comprehension.

Pressey Diagnostic Reading Tests by S. L. Pressey and L. C. Pressey. PSP, 1929. Grades 3-9. Two forms. Time: 35 minutes. Vocabulary, comprehension and rate.

Pressey Diagnostic Vocabulary Test by S. L. Pressey and L. C. Pressey. PSP, 1929. Grades 1-3. Two forms. Time: 2 minutes. Size of reading vocabulary.

Silent Reading Comprehension: Iowa Every-Pupil Tests of Basic Skills, Test A by E. Horn, M. McBroom, H. A. Greene, and E. F. Lindquist. HM, 1945. Grades: *Elementary Battery*, 3-5; *Advanced Battery*, 5-9. Four forms. Time: 50-85 minutes. Vocabulary, comprehension, noting details, organization of ideas, grasping total meaning.

SRA Reading Record by G. T. Buswell. SRA, 1947. Grades 7-12. One form. Time: 40 minutes. Rate of reading, comprehension, sentence and paragraph meaning, general and technical vocabulary, map, table, graph and other specialized reading.

Stanford Achievement Test: Reading by T. L. Kelley, G. M. Ruch and L. M. Terman. WBC, 1940. Grades: *Primary*, 2-3; *Intermediate*, 4-6; *Advanced*, 7-9. Three (primary) to five forms. Time: 30-40 minutes. Paragraph meaning and word meaning.

Stone Narrative Silent Reading Tests by C. R. Stone. PSP, 1922. Grades 3, 4, 5-6, 7, junior high school (each separate). One form. Time: 40-60 minutes. Rate and comprehension.

Stone-Webster Test in Beginning Reading. WPC, 1937. Grade 1. Two forms. Time: 40 minutes. Vocabulary and sentence meanings.

Test of Study Skills by J. W. Edgar and H. T. Manuel. SC, 1940. Grades 4-9. Two forms. Time: 60 minutes. Use of references, reading graphs, tables and maps, critical inference.

Traxler Silent Reading Test by A. E. Traxler. PSP, 1934. Grades 7-10. Two forms. Time 50 minutes. Rate, comprehension, word and paragraph meaning.

Unit Scales of Attainment in Reading by M. J. Van Wagenen. ETB, 1932. Grades 1-9. Three forms. No time limit. Paragraph comprehension.

Williams Reading Tests by A. J. Williams. PSP, 1926. Grades 1-3. Two forms. Time: 20 minutes. Vocabulary and sentence comprehension.

Summary

To adjust instruction to individual needs of pupils in her class, the teacher must appraise the reading proficiency of each child in the following areas: word identification and recognition, vocabulary growth, comprehension, rate of reading, study skills, specialized reading skills, oral reading, attitudes, interests, and tastes. Information for the appraisals is obtained by means of teacher observation, and ratings, informal tests and check exercises, and standardized tests. Appraisal is facilitated by organizing

the data from observations, tests, and ratings in record forms and profiles.

Standardized tests should be selected so that a maximum amount of information may be obtained from their use. The over-all school reading program should be integrated with a coordinated testing program from grade to grade. Other information needed as a basis for test selection includes aspects of reading measured by a test, grade range in reading ability covered, test costs, testing time, and availability of norms.

Selected References

- ADAMS, Fay, GRAY, Lillian, and REESE, Dora, *Teaching children to read*. New York: The Ronald Press Company, 1949, chap. 16.
- BOND, Guy L., and WAGNER, Eva B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950, chap. 17.
- HARRIS, Albert J., *How to increase reading ability*, 2nd ed. New York: Longmans, Green & Company, 1947, chap. 5.
- RUSSELL, David H., *Children learn to read*. Boston: Ginn and Company, 1949, chap. 16.
- STONE, Clarence R., *Progress in primary reading*. St. Louis: Webster Publishing Co., 1950, chap. 5.
- WITTY, Paul, *Reading in modern education*. Boston: D. C. Heath & Company, 1949, chap. 8.
- WRIGHTSTONE, J. W., *Appraisal of growth in reading*. Educational Research Bulletin No. 2. New York: Board of Education of the City of New York, 1941.

CHAPTER XIX

Materials for Reading

Satisfactory progress in learning to read depends upon the quantity and quality of the reading materials read as well as upon good teaching. In any classroom there should be available an ample supply of varied materials of fine quality. The difficulty of these reading materials should be appropriate to the range of reading ability in the class. A competent teacher is able to provide a systematic developmental program of reading instruction in proportion to the quantity of satisfactory to excellent material available. The enrichment of the program, the adjustment of instruction to individual differences, the well-handled unit instruction, and the providing of motivation for recreational reading all depend to a large degree upon availability of appropriate materials.

It is readily apparent that the supply of books in many school systems is at present too meager for the most effective learning by all pupils. According to Whipple (188), both the variety of books and the quantity available tend to be much less than what is recommended by authorities. This deficiency shows up in classroom libraries as well as in school libraries. Teachers frequently note the need of more books, particularly of the supplementary reading materials necessary to adjust instruction to individual differences. School administrators are also aware of deficiencies in reading materials. In many schools, therefore, wherever funds are procurable, a first step towards improving reading is to increase the supply of reading materials in the classroom and in the school library.

It is difficult to exaggerate the *rôle of the library* in the reading

program. The classroom library or reading nook, the school library, and the community library are all indispensable. To best provide for the reading needs of pupils, the functions of all of these should be closely coordinated. Whenever good materials are available, more extensive recreational reading results. With the enjoyment inherent in such reading, children tend to become habitual readers. The rôle of classroom and school libraries has been taken up at appropriate places throughout this book.

Full use of materials in the reading program is possible only if the teacher has a thorough knowledge of them. It is necessary for her to know the vocabulary, the concepts, and the difficulty level as well as the nature of the content, in reading materials. Only then can guidance and instruction be adjusted to differences in mental maturity, reading skills, and interest needs of the children. In addition to a thorough knowledge of materials immediately available, the teacher will need to be familiar with other sources both of information and of supply in order to direct children to proper materials for both recreational and work type of reading. Various avenues of approach to a knowledge of materials are discussed below.

Types of Reading Material

Many types of material are needed in the developmental reading program. Detailed consideration is given this problem by Whipple (188), Adams, Gray and Reese (1), and Clarke (24, 25). Although certain types of materials listed below are employed fairly uniformly throughout the grades, others find their main use either in the primary or in the intermediate grades.

1. *Materials for basic instruction.* In most programs, a series of basic readers constitute the core of materials for fundamental instruction.
2. *Materials for supplementary practice in the basic skills.* Workbooks of appropriate content provide much of this material.
3. *Supplementary materials for intensive and extensive reading.*
4. *Materials in the content fields.*
5. *Newspapers and magazines.*
6. *Dictionaries.*

7. *Reference materials for work-type reading.*
8. *Materials for remedial reading.*
9. *Sources of information on books.*
10. *Audio-visual aids.*

Desirable Character of Materials

To provide a balanced reading program one must know what characteristics are to be desired in each type of material as well as what is available. Teachers who serve on committees whose function it is to make highly important selections of books will need a wider range of information than can be given here. However, it is the job of every teacher to have enough information about materials to organize and carry out her own program of reading instruction.

Materials for basic instruction

The foundation materials which are drawn upon during preparation for reading and introduction to reading have been reviewed in Chapter VI. The present section will be devoted to contributions which the better series of basic readers can make to a sound and properly balanced reading program. Three of these have been ably outlined by Whipple (188).

1. The first of these contributions lies in the careful control of level of difficulty. The level of difficulty in materials should be stepped up gradually, so that the sequence in progress becomes truly developmental. Careful attention is given to rate of introducing new words, repetition of words, clarity in developing concepts, complexity of sentence structure, length of story, and so on. Continuous and satisfying progress in learning to read is assured for the majority of children only when there is proper gradation of difficulty in these basic materials. Vocabulary control has been considered in greater detail in Chapters IX and X.

2. In many recently published series of basic readers the materials are organized around units such as "home," "the circus," "the farm," and "school." When the units employed deal with experiences and interests common to children, they can be of greatest assistance to the teacher who is alert to the values of

good motivation. For example, it then becomes easy for her to use the unit in a basic reader as a point of departure to stimulate additional reading of related materials.

3. Most modern basic series provide for an orderly development of comprehension skills. When material has been especially prepared for the purpose, instruction designed to develop the following of a sequence of thought is facilitated, or the search for supporting details or the development of some other comprehension skill becomes easy.

In general, the better series of readers provide a well controlled basic *core* of materials for instruction. Such materials can play a valuable rôle in the balanced reading program. Russell (145) has expressed this view well. His analysis reveals that the modern basic series of readers is constructed with aims to provide: (1) continuity of growth; (2) wide variety of reading activities; (3) a complete organization of reading experiences; and (4) worthwhile content of ideas. He stresses, however, that even though the books are carefully written to fulfill these principles, good instruction will depend upon these readers for only a part of the whole reading program.

With good teaching it is possible to achieve normal progress in reading proficiency without using basic readers. However, since normal progress also occurs when basic readers are used, there seems to be no advantage gained by not using them. Moreover, as stressed by Lazar (116), when reading units are organized in the primary grades without the use of basic readers, it is up to the teacher herself to select, organize, and control the vocabulary properly. In fact, no advantage over the basic readers could be gained unless the substitute materials organized by the teacher are better than those available in the basic series. This is not very likely to be the case.

Supplementary practice materials

Published practice materials are largely in the form of work-books. Those which accompany series of basic readers tend to be most satisfactory. They are designed to give additional practice in word recognition and thoughtful interpretation as well as to

provide diagnostic checking of progress in reading. The uses and limitations of workbooks were discussed in Chapter VII.

Other supplementary materials

The well-balanced reading program requires much more reading material than what is provided by a basic series used in connection with workbooks. As we have said so often, it is extremely desirable to have available a large number of books varying widely in subject matter and in difficulty. They will consist of additional basic readers, supplementary readers, natural science and social studies materials, story books, and poetry. Such materials are needed to extend experience, enrich vocabularies, clarify concepts, and satisfy individual interests and demands for information. In addition there should be an ample amount and variety of children's literature suitable for broadening these interests and developing tastes. All these materials are necessary to provide enrichment of the core materials. At the primary level, the vocabulary of the supplementary materials should duplicate to a large degree that found in the basic materials. With progress in reading at the higher levels, however, children will be able to handle a wider variety of books on topics in which they are currently interested. The number of copies needed of a particular book will vary according to the nature of the book and the needs of the class; the demand may be for a single copy, or for a copy for each child in the group. Clarke (24, 25) and Morrison (131) have listed numerous series of basic and supplementary readers.

Materials in the content fields

Reading of content materials begins in the primary grades and expands rapidly in the intermediate grades. The rôle of reading in developing new knowledge, understandings, appreciations, and interests in the content fields is outlined by Whipple (188). Reading becomes a necessary supplement to first-hand and vicarious experiences for attaining goals of instruction in this area. One important goal is reached when the child somewhat experienced in the use of the scientific method obtains information by

observation and by experiment, and then evaluates the information he has unearthed.

There are now available at all grade levels excellent series of science textbooks and pamphlets with controlled vocabularies. Both easy and more difficult biographies of great scientists are also published. When pupils have attained sufficient proficiency in reading, they should discover that children's encyclopedias, dictionaries, reference works, and selected magazines are valuable sources of information (see below).

Ordinarily, the teaching of the social studies follows a unit organization. In most units the longest single phase tends to be reading. Methods and materials in this field are listed by Horn (101), by Preston (138), and by Wesley and Adams (185). For the most part, reading sources in the social studies consist of maps, children's encyclopedias, bulletins, magazines, and newspapers in addition to textbooks and collateral readings.

As in any other area, reading material in the content fields is of value only if the child can read it with understanding. Here, as in any reading, individualization of instruction is necessary. A child will read with understanding only if a book is fitted to his reading ability.

Newspapers and magazines

Magazines and newspapers contribute a good source of supplementary reading material for elementary-school pupils. Besides furnishing current and timely articles, they provide valuable materials for recreational reading, for broadening experience, and for making possible certain unit projects. In addition, magazines and newspapers have a special appeal to children and are eagerly read by those who have progressed sufficiently in reading ability. A few of them are listed below:

My Weekly Reader, American Education Press, Columbus, Ohio. Suitable for grades one to five.

Current Events, American Education Press, Columbus, Ohio. Suitable for grades five and six.

Young Citizen, Civic Education Service, Washington, D. C. Suitable for grades five and six.

Junior Scholastic, Scholastic Corporation, New York. Suitable for grades six to eight.

Young America, Eton Publishing Corporation, New York. Suitable for grades six to nine.

A number of other magazines contain materials that are interesting and which can be read by the better readers in the intermediate grades. Examples are: *American Boy*, *American Girl*, *Popular Mechanics*, and *Popular Science Monthly*.

Dictionaries

The use of dictionaries constitutes a necessary aid in the development of reading proficiency. In the primary grades, children become acquainted with picture dictionaries. From the fourth grade on, children use regular dictionaries of appropriate content and difficulty. The rôle of dictionary usage and its training have been noted at relevant places in this book. Representative dictionaries for use in the elementary grades are listed below:

Picture Dictionaries. Construction of word-picture dictionaries by primary-school children is a rather common practice. Some of the ready-made dictionaries of this type follow:

WATTERS, G., and COURTIS, S. A., *The Picture Dictionary for Children*. New York: Grosset & Dunlap, 1948.

WALPOLE, E. W., *The Golden Dictionary*. New York: Simon & Schuster, Inc., 1944.

WRIGHT, W. W., *The Rainbow Dictionary*. New York: The World Publishing Co., 1947.

SCOTT, A., *Picture Dictionary for Boys and Girls*. Garden City, N. Y.: Garden City Publishing Co., 1950.

Dictionaries for the Intermediate Grades. Care must be exercised in choosing actual dictionaries for the elementary school. "Bargain" editions are likely to be inadequate since construction of a reputable dictionary tends to be both time-consuming and costly. Supplementary instructional aids to dictionary use are available for pupils and for teachers. Several of these are listed by Betts (7, p. 669). Examples of dictionaries especially designed for use in the elementary school follow:

Webster's Elementary Dictionary. New York: American Book Company, 1945.

- The Thorndike-Century Beginning Dictionary*. Chicago: Scott, Foresman and Co., 1945.
- The Winston Dictionary for Children*. Philadelphia: The John C. Winston Company, 1946.
- The Thorndike-Century Junior Dictionary*. Scott, Foresman and Co., 1935. (Suitable for grades six to nine).

Reference materials for work-type reading

As children move into the intermediate grades and concentrate more upon units requiring work-type reading, children's encyclopedias and other reference works are needed. The following are valuable sources of information for children who are proficient enough to read them: *Compton's Pictured Encyclopedia*, *The Junior Britannica*, *The Book of Knowledge*, *The World Book Encyclopedia*. Also an up-to-date *World Almanac* is useful on many occasions.

Materials for remedial reading

As noted in Chapter XII, remedial reading by the classroom teacher is concerned with identifying the less severe difficulties as they occur and then applying the individualized instruction necessary to correct the difficulties. It was also remarked that remedial teaching is merely good classroom teaching with a somewhat greater stress upon individualized instruction. Remedial instruction in the classroom situation requires, therefore, the same materials needed in any program which emphasizes adjustment to individual abilities and needs. Specialists will need additional materials for the severe remedial cases.

Sources of information on books

The teacher who is concerned with reading programs will need to keep posted on what books are published. Fortunately, an abundance of books varying in interest appeal and difficulty are available. To locate books and to secure satisfactory information about them, the teacher may consult various sources of information such as those listed below:

- ARBUTHNOT, May H., *Children and Books*. Chicago: Scott, Foresman and Company, 1947. This contains an excellent annotated and classified bibliography of practically all types of children's books.

The Booklist: A Guide to New Books. Chicago: American Library Association. This bimonthly journal has a section devoted to children's books.

BREWTON, J. E. and S. W., *Index to Children's Poetry.* New York: H. W. Wilson Company, 1942.

The Children's Catalogue, 7th ed., compiled by R. Giles, D. Cook, and D. West. New York: H. W. Wilson Company, 1946. A supplement, edited by D. Cook, brings the lists up to 1948.

HOLLOWELL, Lillian, *A Book of Children's Literature*, 2nd ed. New York: Rinehart & Co., Inc., 1950. This also contains a very good annotated bibliography of children's books.

The Horn Book Magazine. Boston: Horn Bk., Inc. This is devoted to books and reading materials for young children.

RUE, Eloise, *Subject Index to Books for Primary Grades.* Chicago: 1943; American Library Association, First Supplement, 1946.

——— *Subject Index to Books for Intermediate Grades.* Chicago: American Library Association, 1940, First Supplement, 1943.

In the *Proceedings* of the Conferences on Reading, edited by Gray (78, 79, 80, 81, 82, 83, 84, 85), lists of new books are given each year.

Numerous other sources provide information on children's books. Many of these are listed by Whipple (188), Smith (153), Adams, Gray, and Reese (1), and Blair (11). Any publishing company will send information concerning single books or series of books which it publishes.

Audio-visual aids

Much equipment besides books is used in teaching reading. For the most part this equipment consists of audio-visual aids. These aids may be used at all grade levels to broaden experience, to clarify concepts dealt with in the reading, and to stimulate a desire to read. When first-hand experience is not possible, they provide informative vicarious experience. Also, these aids can furnish highly effective supplements to actual experience such as a trip to a farm. Or they may be useful after such a trip during class discussion of what was done and seen. Other specific uses of audio-visual aids in teaching are discussed elsewhere in this book as in Chapters IV, VI, and XVI.

The audio-visual aids which may be employed advantageously on one occasion or another include flat pictures, slides, filmstrips,

silent and sound motion pictures, models, specimens, exhibits, graphs, maps, globes, radio and television programs, and phonograph recordings. Materials chosen for a particular group should be suited to the children's stage of experience and maturity. Simple flat pictures, mounted or unmounted, constitute one of the most practical and effective of visual aids. They are readily acquired and well adapted to use in almost any reading activity. Teachers, with some additions brought in by the pupils, can assemble and file pictures, post card illustrations, pictorial maps and the like. Other audio-visual materials may be borrowed from the school library, a public library, a visual education department or a museum. Some teachers' guides or manuals suggest procedures for using visual aids.

Appraisal and Choice of Books

The careful appraisal and wise choice of books for the reading program in a school system becomes a complicated and difficult procedure. The availability of a wide variety of reading materials does not eliminate the necessity for fine discrimination in their selection. All books published are not equally satisfactory. Some are dull. Some may be attractive in appearance but lack suitable content or style or vocabulary control. Thoughtful appraisal and choice of books is necessary if the books selected are to serve specific purposes in the reading program. And, as noted by Whipple (188), books should be selected for individual children rather than for children in general. The choice of suitable books necessitates the use of proper standards and methods of evaluation.

Selection of books for the reading program is ordinarily done by teachers who will use them or by a committee composed of teachers, school officials, and the librarian. Suggestions of criteria and procedures to aid appraisal and selection of books are given by Whipple (188), Sprache (156), Storm (162), Edman (49), Russell (146), Adams, Gray and Reese (1), and Clement (26). Clement (27) has also devised a score sheet for recording the results of evaluation. The best brief summary of data on readability is given by Dale (33). The teachers serving on a committee for

appraisal and selection of books should study the specifications listed in these references. Other teachers should become familiar in a general way with the basic factors involved in appraisal and choice of reading books as outlined below.

Standards and methods of evaluation

It is desirable to keep the work of evaluation at a minimum and at the same time take enough pains to insure a satisfactory choice of books. The number of items or factors that are eligible as a basis for selection is large. Whipple (188) suggests that the teacher choose from these items or factors several of real importance in terms of meeting the reading needs of individual children. The teacher can then use the time and effort available to make as objective an evaluation as possible in terms of this limited set of items. When the list of items to be considered is long, the tendency is to spend too much work on appraising minor factors. At the same time the minor factors tend to receive undue weight relative to more significant characteristics. Then, too, use of a short list of items avoids the confusion which is apt to result in summing up ratings based upon a long list, many items of which are trivial. Quite often each teacher or committee will want to make out a list of items related to the task at hand.

In evaluating a particular kind of reading material such as basic readers or dictionaries, reference can be made to the relevant parts of the above discussion of "*desirable characteristics*." The items to be considered will vary, of course, with the type of book to be selected, for example, it may be a primer, a picture dictionary, or a workbook. Some of the following items will need to be considered in all ratings, others only for specific types of books. No teacher, however, in her evaluation need feel restricted to the items listed below.

1. *Nature of Content*: Appropriateness with regard to the needs of the children who will use the book, purposes to be achieved by its use, range or variety of subject matter, interest appeal, literary quality, and style of writing.

2. *Level of Difficulty*: Appropriateness in terms of vocabulary

control, sentence and paragraph structure, complexity of concepts, and literary style.

3. *Typography*: Appropriateness of quality of paper, size of type, length of line, leading, margins, and so on in relation to readability.

4. *Illustrations*: Suitability in terms of simplicity, context value or information relevant to textual material, coloring, size, and number.

5. *Instructional Values*: Appropriateness in terms of promoting specific reading objectives, stimulating thinking, providing opportunity to develop word recognition skills, vocabulary knowledge, concepts, comprehension skills and study skills. Clarity and completeness of directions to students and to the teacher in workbooks and teacher's guides.

Miscellaneous Materials

In addition to books and the audio-visual aids already mentioned, the teaching of reading requires certain other supplies and equipment. Children's experiences and activities ordinarily lead to constructing a vast amount of informal materials, especially in the primary grades. Various kinds and sizes of cardboard and of paper will be needed. Every schoolroom should have ample facilities such as a bulletin board, tack boards, and chart holders for displaying materials. Duplicating equipment and a typewriter should be available. In the primary grades the typewriter type should be of primer size if possible.

Other materials needed at one or more grade levels include paints, crayons, paste, scissors, blocks, clay, toys, and perhaps plants and pets. Construction work in certain teaching units will make use of building materials, a hammer and other simple tools. The children themselves may bring in important contributions of materials for such units. Ordinarily, empty wooden boxes and crates can be obtained from local stores. Materials necessary for elementary school activities are discussed in methods books or pamphlets such as the *Iowa Elementary Teachers Handbook*, Vol. II (103).

Summary

The supply of reading materials available in schools tends to be much less than what is necessary for good teaching. The degree to which a competent teacher is able to provide a satisfactory developmental program of reading instruction is in direct proportion to the *quantity* of *good* material available. Effective use of materials requires, of course, that the teacher have a thorough knowledge of what she has on hand, or could get, or make herself.

For best results in any reading program, materials should be ample in amount, varied in subject matter, and of the proper level of difficulty. The kinds of reading material needed include basic series of readers, practice materials such as workbooks, supplementary books, and pamphlets for intensive and extensive reading, subject-matter texts, newspapers and magazines, dictionaries, and reference books. The basic readers ordinarily provide for the core of the instructional program. Various sources of descriptive information on books are available to the teacher. Audio-visual aids and a variety of other materials and equipment are also needed.

Careful appraisal is a prerequisite to wisely chosen books for the school. This appraisal is likely to be more satisfactory when the teacher concentrates her efforts upon a relatively small number of highly important items dealing with content, level of difficulty, typography, illustrations, and instructional values in the books.

Selected References

- ADAMS, Fay, GRAY, Lillian, and REESE, Dora, *Teaching children to read*. New York: The Ronald Press Company, 1949, chap. 14.
- WHIPPLE, Gertrude, Desirable materials, facilities, and resources for reading, *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, chap. 7.

Bibliography

All the citations made in this book are listed below. In addition, the bibliography includes a number of selected reports, monographs, and books which provide a body of information relevant to our discussion of the teaching of reading in the elementary school. Limitations of space preclude making the list more extensive. Obviously there must be important omissions. The writer has not intentionally excluded any specific report.

Certain titles have been included as aids to the classroom teacher. Samples of these are: (1) the yearbooks on reading issued by the National Society for the Study of Education (140, 140a, 140b, 167); (2) summaries of reading investigations (75, 76, 180, 181); (3) summaries of all studies on eye movements in reading up to 1946 (173, 176); (4) reports of the University of Chicago annual conferences on reading compiled and edited by Professor W. S. Gray (77 through 86).

1. ADAMS, F., GRAY, L., and REESE, D., *Teaching children to read*. New York: The Ronald Press Company, 1949.

2. ADDY, M. L., Development of a meaning vocabulary in the intermediate grades, *Elem. English Rev.*, 1941, 18, 22-26; 30.

3. ALMY, M. C., *Children's experiences prior to first grade and success in beginning reading*. New York: Bureau of Publications, Teachers College, Columbia University, 1941.

4. ARBUTHNOT, M. H., *Children and books*. Chicago: Scott, Foresman and Company, 1947.

5. ARTLEY, A. S., Teaching word meaning through context. *Elem. English Rev.*, 1943, 20, 68-74.

6. BEERY, Althea, Development of reading vocabulary and word recognition, *Reading in the elementary school*. Forty-eighth Yearbook

of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 172-192.

7. BETTS, E. A., *Foundations of reading instruction*. New York: American Book Company, 1946.

8. ——— Adjusting instruction to individual differences, *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 266-283.

9. ——— and BETTS, T. M., *An index to professional literature on reading and related topics*. New York: American Book Company, 1943.

10. BETZNER, Jean, *Exploring literature with children in the elementary school*. New York: Bureau of Publications, Teachers College, Columbia University, 1943.

11. BLAIR, G. M., *Diagnostic and remedial teaching in secondary schools*. New York: The Macmillan Company, 1946.

12. BOND, Eva, *Reading and ninth-grade achievement*. New York: Bureau of Publications, Teachers College, Columbia University, 1938.

13. BOND, G. L., *Auditory and speech characteristics of poor readers*. New York: Bureau of Publications, Teachers College, Columbia University, 1935.

14. ——— and others, *Developmental reading series: A basic reading program*. Chicago: Lyons & Carnahan, 1949.

15. ——— and HANDLAN, B., *Adapting instruction in reading to individual differences*. Minneapolis: University of Minnesota Press, 1948.

16. ——— and WAGNER, E. B., *Teaching the child to read*, rev. ed. New York: The Macmillan Company, 1950.

17. BRIDGES, L. H. Speed versus comprehension in elementary readings. *J. Educ. Psychol.*, 1941, 32, 314-320.

18. BRISTROW, W. H. *Reading readiness in the first grade*. Educational Research Bulletin No. 5. New York: Board of Education of the City of New York, 1942.

19. BROOM, M. E., and others, *Effective reading instruction*. New York: McGraw-Hill Book Company, Inc., 1942.

20. BUCKINGHAM, R. B., and DOLCH, E. W., *A combined word list*. Boston: Ginn and Company, 1936.

21. BUROS, O. K., ed., *The third mental measurements yearbook*. New Brunswick, N. J.: Rutgers University Press, 1949.

22. BUSWELL, G. T., *Non-oral reading: A study of its use in the Chicago public schools*, Suppl. Educ. Monog. No. 60. Chicago: University of Chicago Press, 1945.

23. CASON, E. B., *Mechanical methods for increasing the speed of reading*. New York: Bureau of Publications, Teachers College, Columbia University, 1943.

24. CLARKE, L. K., The nature and variety of reading materials in the primary grades, *Co-operative effort in schools to improve reading*.

- Suppl. Educ. Monog. No. 56. Chicago: University of Chicago Press, 1942, 138-144.
25. CLARKE, L. K., The nature and variety of reading materials in the middle grades, *Co-operative effort in schools to improve reading*. Suppl. Educ. Monog. No. 56. Chicago: University of Chicago Press, 1942, 145-149.
26. CLEMENT, J. A., *Manual for analyzing and selecting textbooks*. Champaign, Ill.: The Garrard Press, 1942.
27. ——— *Score sheet for analysis and approval of textbooks*. Champaign, Ill.: The Garrard Press, 1942.
28. COLBURN, Evangeline, *Books and library reading for pupils of the intermediate grades*. Chicago: University of Chicago Press, 1942.
29. COLE, Luella, *The improvement of reading*. New York: Farrar & Rinehart, Inc., 1938.
30. ——— *The teacher's handbook of technical vocabulary*. Bloomington, Ill.: Public School Publishing Co., 1940.
31. COOK, W. W., *Grouping and promotion in the elementary school*. Minneapolis: University of Minnesota Press, 1941.
32. DAHL, L. A., *Public school audiometry*. Danville, Ill.: The Interstate Printers and Publishers, 1949.
33. DALE, Edgar, ed., *Readability*. Chicago: National Council of Teachers of English, 1949. (Reprinted from *Elementary English*, January to May, 1949.)
34. ——— *Bibliography of vocabulary studies*. Columbus, Ohio: Bureau of Educational Research, Ohio State University, 1949.
35. DEARBORN, W. F., JOHNSTON, P. W., and CARMICHAEL, L., Oral stress and meaning in printed material, *Science*, 1949, 110, 404.
36. DENECKE, L., Fifth graders study the comic books, *Elem. English Rev.*, 1945, 22, 6-8.
37. DEPUTY, E. C., *Predicting first grade reading achievement: a study in reading readiness*. New York: Bureau of Publications, Teachers College, Columbia University, 1930.
38. DICE, L. K., An experimental study of two methods of teaching beginning reading. *J. Educ. Res.*, 1943, 36, 535-545.
39. DOLCH, E. W., A basic sight vocabulary. *Elem. Sch. J.*, 1936, 36, 456-460; also in Dolch's *Problems in reading*, Champaign, Ill.: The Garrard Press, 1948, 97-107; and Dolch's *Teaching primary reading*, Champaign: The Garrard Press, 1941, 202-211.
40. ——— *Teaching primary reading*. Champaign, Ill.: The Garrard Press, 1941.
41. ——— *Problems in reading*. Champaign, Ill.: The Garrard Press, 1948.
42. ——— Tested word knowledge vs. frequency counts. *J. Educ. Res.*, 1951, 44, 457-470.
43. ——— and Bloomster, M., Phonic readiness. *Elem. Sch. J.*, 1937, 37, 201-205.
44. DUNKLIN, H. T., *The prevention of failure in first grade reading*

by means of adjusted instruction. New York: Bureau of Publications, Teachers College, Columbia University, 1940.

45. DURRELL, D. D., Development of comprehension and interpretation. *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 193-204.

46. ——— *Improvement of basic reading abilities*. Yonkers, N. Y.: World Book Company, 1940.

47. ——— and Sullivan, H. B. Reading vocabularies for grades four, five and six. In Durrell's *Improvement of basic reading abilities*. Yonkers, N. Y.: World Book Company, 1940, 355-391.

48. ———, Sullivan, H. B., and Murphy, H. A. *Building word power in primary reading*. Yonkers, N. Y.: World Book Company, 1945.

49. EDMAN, M., Criteria for selecting literature in the middle and upper grades, *The appraisal of current practices in reading*. Suppl. Educ. Monog. No. 61. Chicago: University of Chicago Press, 1946, 209-215.

50. FALLON, M. E., The pre-reading program. *Chicago Schools Journal*, 1939, 21, 10-12.

51. FENDRICK, P. A., *Visual characteristics of poor readers*. New York: Bureau of Publications, Teachers College, Columbia University, 1935.

52. ——— and McGLADE, C. A. A validation of two prognostic tests of reading aptitude. *Elem. Sch. J.*, 1938, 39, 187-194.

53. GANS, ROMA. *Critical reading comprehension in the intermediate grades*. New York: Bureau of Publications, Teachers College, Columbia University, 1940.

54. ——— *Guiding children's reading through experiences*. New York: Bureau of Publications, Teachers College, Columbia University, 1941.

55. ——— *Reading is fun; Developing children's reading interests*. New York: Bureau of Publications, Teachers College, Columbia University, 1949.

56. GATES, A. I., *New methods in primary reading*. New York: Bureau of Publications, Teachers College, Columbia University, 1928.

57. ——— Maladjustments due to failure in reading. *School Executive*, 1933, 55, 379-380.

58. ——— *A reading vocabulary for the primary grades*, rev. ed. New York: Bureau of Publications, Teachers College, Columbia University, 1935.

59. ——— The necessary mental age for beginning reading. *Elem. Sch. J.*, 1937, 37, 497-508.

60. ——— An experimental evaluation of reading readiness tests. *Elem. Sch. J.*, 1939, 39, 497-508.

61. ——— *Manual of directions for Gates reading readiness tests*.

New York: Bureau of Publications, Teachers College, Columbia University, 1940.

62. GATES, A. I., A further evaluation of reading readiness tests. *Elem. Sch. J.*, 1940, 40, 577-591.

63. ——— *The improvement of reading*, 3rd ed. New York: The Macmillan Company, 1947.

64. ——— and BOND, G. L., Reading readiness. *Teachers College Record*, 1936, 37, 679-685.

65. ———, BOND, G. L., and RUSSELL, D. H., assisted by others, *Methods of determining reading readiness*. New York: Bureau of Publications, Teachers College, Columbia University, 1939.

66. ———, BOND, G. L., and RUSSELL, D. H., Relative meaning and pronunciation difficulties of the Thorndike 20,000 words. *J. Educ. Res.*, 1938, 32, 161-167.

67. ——— and CASON, E. B., An evaluation of tests for diagnosis of ability to read by phrases or "thought units." *Elem. Sch. J.*, 1945, 46, 23-32.

68. ——— and PRITCHARD, M. C., *Teaching reading to slow-learning pupils*. New York: Bureau of Publications, Teachers College, Columbia University, 1942.

69. ——— and RUSSELL, D. H., Types of materials, vocabulary burden, word analysis, and other factors in beginning reading. I and II. *Elem. Sch. J.*, 1938, 39, 27-35; 119-128.

70. GOLDSTEIN, Harry, *Reading and listening comprehension at various controlled rates*. New York: Bureau of Publications, Teachers College, Columbia University, 1940.

71. GRAY, W. S., *Standardized oral reading paragraphs*. Bloomington, Ill.: Public School Publishing Co., 1916.

72. ——— The measurement of understanding in the language arts: the receptive language arts. *Measurement of understanding*. Forty-fifth Yearbook of the National Society for the Study of Education, Part I. Chicago: University of Chicago Press, 1946, 189-200.

73. ——— *On their own in reading*. Chicago: Scott, Foresman and Company, 1948.

74. ——— Reading as an aid in learning. *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 233-253.

75. ——— *Reading*. In *Encyclopedia of research in education*, rev. ed. New York: The Macmillan Company, 1950, 965-1005.

76. ——— Summary of reading investigations, July 1, 1949 to June 30, 1950. *J. Educ. Res.*, 1951, 44, 401-441. Also see Gray's annual summaries in previous volumes of this journal.

77. ——— ed. *Adjusting reading programs to individuals*. Suppl. Educ. Monog. No. 52. Chicago: University of Chicago Press, 1941.

78. ——— ed. *Co-operative effort in schools to improve reading*.

Suppl. Educ. Monog. No. 56. Chicago: University of Chicago Press, 1942.

79. GRAY, W. S., ed. *Reading in relation to experience and language*. Suppl. Educ. Monog. No. 58. Chicago: University of Chicago Press, 1944.

80. ——— ed. *The appraisal of current practices in reading*. Suppl. Educ. Monog. No. 61. Chicago: University of Chicago Press, 1945.

81. ——— ed. *Improving reading in content fields*. Suppl. Educ. Monog. No. 62. Chicago: University of Chicago Press, 1947.

82. ——— ed., *Promoting personal and social development through reading*. Suppl. Educ. Monog. No. 64. Chicago: University of Chicago Press, 1947.

83. ——— ed., *Basic instruction in reading in elementary and high schools*. Suppl. Educ. Monog. No. 65. Chicago: University of Chicago Press, 1948.

83a. ——— Changing conceptions of basic instruction in reading. *Basic instruction in reading in elementary and high schools*. Suppl. Educ. Monog. No. 65. Chicago: University of Chicago Press, 1948, 1-6.

84. ——— ed., *Classroom techniques in improving reading*. Suppl. Educ. Monog. No. 69. Chicago: University of Chicago Press, 1949.

85. ——— ed., *Keeping reading programs abreast of the times*. Suppl. Educ. Monog. No. 72. Chicago: University of Chicago Press, 1950.

86. ——— ed., *Promoting growth toward maturity in interpreting what is read*. Suppl. Educ. Monog. No. 74. Chicago: University of Chicago Press, 1951.

87. ——— with the assistance of Gertrude Whipple, *Improving instruction in reading: An experimental study*. Suppl. Educ. Monog. No. 40. Chicago: University of Chicago Press, 1933.

88. ——— and Holmes, E., *The development of meaning vocabularies in reading*. Chicago: University of Chicago Press, 1938.

89. HAEFNER, R., Casual learning of word meanings. *J. Educ. Res.*, 1932, 25, 267-277.

90. HAMILTON, J. A., *Toward proficient reading*. Claremont, Calif.: Saunders Press, 1939.

91. HARRIS, A. J., *How to increase reading ability*, 2nd ed. New York: Longmans, Green & Company, 1947.

92. HARRISON, M. L., *Reading readiness*, rev. ed. Boston: Houghton Mifflin Company, 1939.

93. HAYAKAWA, S. I., *Language in action*. New York: Harcourt, Brace & Company, Inc., 1941.

94. HENIO, M. S., Predictive value of a reading-readiness test and of teachers' forecasts. *Elem. Sch. J.* 1949, 50, 41-46.

95. HILDRETH, Gertrude, *Personality and interest inventory, elementary form*. New York: Bureau of Publications, Teachers College, Columbia University, 1936.

96. HILDRETH, Gertrude, Reading programs in the early primary period. *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 54-92.
97. ——— Reading programs in grades II and III. *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 93-126.
98. ——— *Readiness for school beginners*. Yonkers, N. Y.: World Book Company, 1950.
99. HILLIARD, G. H., and TROXELL, E., Informational background as a factor in reading readiness and reading progress. *Elem. Sch. J.*, 1937, 38, 255-263.
100. HOLLOWELL, Lillian, *A book of children's literature*, 2nd ed. New York: Rinehart & Company, Inc., 1950.
101. HORN, Ernest, *Methods of instruction in the social studies*. New York: Charles Schibner's Sons, 1937.
102. ——— and CURTIS, J. F., Improvement of oral reading. *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 254-265.
103. Iowa elementary teachers handbook, Vol. II, *Reading*. Des Moines: Department of Public Instruction, State of Iowa, 1943.
104. KELTY, M. G., A suggested basic vocabulary in American history for the middle grades. *J. Educ. Res.*, 1931, 24, 335-349.
105. KINDER, J. S., *Audio-visual materials and techniques*. New York: American Book Company, 1950.
106. KIRK, S. A., *Teaching reading to slow learners*. Boston: Houghton Mifflin Company, 1940.
107. KOTTMAYER, W., Readiness for reading. *Elementary English*, 1947, 24, 355-366.
108. KRANTZ, L. L., *The author's word list for the primary grades*. Minneapolis: Curriculum Research Co., 1945.
109. KYTE, G. C., A core vocabulary for the primary grades. *Elem. Sch. J.*, 1943, 44, 157-166.
110. LAMOREAUX, Lillian, and LEE, D. M., *Learning to read through experience*. New York: Appleton-Century-Crofts, Inc., 1943.
111. LANGSTON, R. G., A core vocabulary for preprimer reading. *Elem. Sch. J.*, 1941, 41, 766-773.
112. LAZAR, May, *Reading interests, activities, and opportunities of bright, average, and dull children*. New York: Bureau of Publications, Teachers College, Columbia University, 1937.
113. ——— *Individualization of instruction in reading*. Educational Research Bulletin No. 1. New York: Board of Education of the City of New York, 1941.
114. ——— *A diagnostic approach to the reading program, Part I*,

Educational Research Bulletin No. 3. New York: Board of Education of the City of New York, 1942.

115. LAZAR, Mary, *A diagnostic approach to the reading program, Part II*, Educational Research Bulletin No. 4. New York: Board of Education of the City of New York, 1942.

116. ——— *The place of reading in the elementary school program*, Educational Research Bulletin No. 7. New York: Board of Education of the City of New York, 1944.

117. ——— *Guiding the growth of reading interests*, Educational Research Bulletin No. 8. New York: Board of Education of the City of New York, 1945.

118. LEE, D. M., *The importance of reading for achieving in grades four, five and six*. New York: Bureau of Publications, Teachers College, Columbia University, 1933.

119. LEE, I. J., *Language habits in human affairs*. New York: Harper and Brothers, 1941.

120. LEWIS, Norman, *How to read better and faster*. New York: Thomas Y. Crowell Company, 1944.

121. LINK, H. C., and HOFF, H. A., *People and books: a study of reading and book-buying habits*. New York: Book Industry Committee, 1946.

122. MALTER, M. S., Children's ability to read diagrammatic materials. *Elem. Sch. J.*, 1948, 49, 98-102.

123. McCULLOUGH, C. M., The recognition of context clues in reading. *Elem. English Rev.*, 1945, 22, 1-5.

124. ———, STRANG, R. M. and TRAXLER, A. E. *Problems in the improvement of reading*. New York: McGraw-Hill Book Company, Inc., 1946.

125. McDADDE, J. E., A hypothesis for non-oral reading. *J. Educ. Res.*, 1937, 30, 489-503.

126. McKEE, Paul, *The teaching of reading in the elementary school*. Boston: Houghton Mifflin Company, 1948.

127. MITCHELL, M. A., *The relationship of reading to the social acceptability of sixth grade children*. New York: Bureau of Publications, Teachers College, Columbia University, 1949.

128. MONROE, Marion, *Children who cannot read*. Chicago: University of Chicago Press, 1932.

129. ——— *Growing into reading*. Chicago: Scott, Foresman and Company, 1951.

130. MORPHETT, M. V., and WASHBURNE, C., When should children begin to read? *Elem. Sch. J.*, 1931, 31, 496-503.

131. MORRISON, H. B., *Grade 1A reading materials on the New York City textbook list*, Curriculum Division Bulletin No. 2. New York: Board of Education of the City of New York, 1943.

132. National Opinion Research Center. *What . . . where . . . why . . . do people read?* Report No. 28. Denver: University of Denver, 1946.

133. PHIPPS, W. R., *An experimental study in developing history reading ability with sixth grade children through development of history vocabulary*. Baltimore: Johns Hopkins Press, 1940.
134. POTTER, M. C., *Perception of symbol orientation and early reading success*. New York: Bureau of Publications, Teachers College, Columbia University, 1949.
135. PRATT, M., Adjusting reading activities in science and literature to individual differences. *Adjusting reading programs to individuals*, Suppl., Educ. Monog. No. 52. Chicago: University of Chicago Press, 1941, 183-188.
136. PRATT, W. E. A study of the differences in the prediction of reading success of kindergarten and non-kindergarten children. *J. Educ. Res.*, 1949, 42, 525-533.
137. PRESSEY, L. C., and PRESSEY, S. L., The determination of a minimum vocabulary in American history. *Educational Method*, 1933, 12, 205-211.
138. PRESTON, R. C., *Teaching social studies in the elementary school*. New York: Rinehart & Company, Inc., 1950.
139. RANKIN, Marie, *Children's interests in library books of fiction*. New York: Bureau of Publications, Teachers College, Columbia University, 1944.
140. *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949.
- 140a. *Reading in high school and college*. Forty-seventh Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1948.
- 140b. *Report of the national committee on reading*. Twenty-fourth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Ill.: Public School Publishing Co., 1925.
141. RINSLAND, H. D., *A basic vocabulary of elementary school children*. New York: The Macmillan Company, 1945.
142. ROBINSON, F. P., and HALL, W. E., *Concerning reading readiness tests*. Bulletin of the Ohio Conference on Reading, No. 3. Columbus, Ohio: Ohio State University Press, 1942.
143. ROSSIGNOL, L. J., *The relationships among hearing acuity, speech production, and reading performance in grades 1A, 1B, and 2B*. New York: Bureau of Publications, Teachers College, Columbia University, 1948.
144. RUSSELL, D. H., Inter-class grouping for reading instruction in the intermediate grades. *J. Educ. Res.*, 1946, 39, 462-470.
145. ——— *The basic reading program in the modern school*. Contributions to Reading No. 1. Boston: Ginn and Company, 1947.
146. ——— *Children learn to read*. Boston: Ginn and Company, 1949.
147. SCOTT, C. M., An evaluation of training in readiness classes. *Elem. Sch. J.*, 1947, 48, 26-32.

148. SEASHORE, R. H., How many words do children know? *The Packet*, D. C. Heath & Company's Service Bulletin for Elementary Teachers, 1947, Vol. 2, No. 2, 3-17.
149. SEEGER, J. C., Vocabulary problems in the elementary school. *Elem. English Rev.*, 1939, 16, 234-239, 279-282, 320-326; 1940, 17, 28-43.
150. ——— Recent research in vocabulary development. *Elem. English Rev.*, 1946, 23, 61-68.
151. ——— and SEASHORE, R. H., How large are children's vocabularies? *Elementary English*, 1949, 26, 181-194.
152. SIEVERS, C. H., and BROWN, B. D., *Methods manual for improving your eye movements in reading*. Wichita, Kansas: McGuin Publishing Co., 1940.
153. SMITH, D. V., Literature and personal reading. *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 205-232.
154. ——— Nature of the reading program to meet personal and social needs. *Promoting personal and social development through reading*, Suppl. Educ. Monog. No. 64. Chicago: University of Chicago Press, 1947, 11-16.
155. SMITH, N. B., Readiness for reading. *Elementary English*, 1950, 27, 31-39; 91-106.
156. SPRACHE, G., Problems in primary-book selection. *Elem. English Rev.*, 1941, 18, 5-12; 52-59; 139-148; 154; 175-181.
157. STEPHENSON, O. W., and MCGEE, W. R., A vocabulary common to citizenship and American history. *J. Educ. Res.*, 1930, 22, 55-58.
158. STONE, C. R., *Better advanced reading*. St. Louis: Webster Publishing Co., 1937.
159. ——— *Stone's graded vocabulary for primary reading*. St. Louis: Webster Publishing Co., 1941.
160. ——— *Progress in primary reading*. St. Louis: Webster Publishing Co., 1950.
161. STORM, G. E., Promoting growth through reading in the social studies. *Adjusting reading programs to individuals*, Suppl. Educ. Monog. No. 52. Chicago: University of Chicago Press, 1941, 189-194.
162. ——— Criteria for selecting literature for school use and for judging methods of presenting or using it: primary grades. *The appraisal of current practices in reading*, Suppl. Educ. Monog. No. 61. Chicago: University of Chicago Press, 1946, 202-208.
163. STRANG, Ruth, *Problems in the improvement of reading in high school and college*, rev. ed. Lancaster, Pa.: The Science Press, 1940.
164. STRANG, R. M., Why children read the comics. *Elem. Sch. J.*, 1943, 43, 336-342.
165. SWENSON, E. J., A study of the relationships among various

types of reading scores on general and science materials. *J. Educ. Res.*, 1942, 36, 81-90.

166. TERMAN, L. M., and LIMA, M., *Children's reading*. New York: D. Appleton-Century Company, 1931.

167. *The teaching of reading: A second report*. Thirty-sixth Year-book of the National Society for the Study of Education, Part I. Bloomington, Ill.: Public School Publishing Co., 1937.

168. THORNDIKE, E. L., Reading as reasoning: a study of mistakes in paragraph reading. *J. Educ. Psychol.*, 1917, 8, 323-332.

169. ——— Improving the ability to read: ability to manage larger units. *Teachers College Record*, 1934, 36, (October) 14-16.

170. ——— The vocabulary of books for children in grades 3 to 8. *Teachers College Record*, 1936-37, 38, 196-205; 316-323; 416-429.

171. ——— and LORGE, I., *The teacher's word book of thirty thousand words*. New York: Bureau of Publications, Teachers College, Columbia University, 1944.

172. THORNDIKE, R. L., *Children's reading interests*. New York: Bureau of Publications, Teachers College, Columbia University, 1941.

173. TINKER, M. A. Eye movements in reading. *J. Educ. Res.*, 1936, 30, 241-277.

174. ——— Speed versus comprehension in reading as affected by level of difficulty. *J. Educ. Psychol.*, 1939, 30, 81-94.

175. ——— Rate of work in reading performance as measured in standardized tests. *J. Educ. Psychol.*, 1945, 36, 217-228.

176. ——— The study of eye movements in reading. *Psychol. Bull.*, 1946, 43, 93-120.

177. TOWNSEND, A., Reading and achievement test scores in the elementary grades. *1946 achievement testing program in independent schools and supplementary studies*, Educational Records Bulletin No. 45. New York: Educational Records Bureau, 1946.

178. TRAXLER, A. E., *The nature and use of reading tests*, Educational Records Bulletin No. 34. New York: Educational Records Bureau, 1941.

179. ——— The relationship between vocabulary and general achievement in the elementary school. *Elem. Sch. J.*, 1945, 45, 331-333.

180. ———, SEDER, M., and others. *Ten years of research in reading*, Educational Records Bulletin No. 32. New York: Educational Records Bureau, 1941.

181. ———, TOWNSEND, A., and others. *Another five years of research in reading*, Educational Records Bulletin No. 46. New York: Educational Records Bureau, 1946.

182. University Elementary Demonstration School Faculty. *Illustrative teaching units for the elementary grades*. Minneapolis: University of Minnesota Press, 1941.

183. University Elementary Demonstration School Faculty. *Using community resources: Illustrative experience units for grades one to six*. Minneapolis: University of Minnesota Press, 1948.

184. WESLEY, E. B., *Teaching the social studies*. Boston: D. C. Heath & Company, 1942.

185. ——— and Adams, M. A., *Teaching social studies in elementary schools*. Boston: D. C. Heath & Company, 1946.

186. WESTOVER, F. L., *Controlled eye movements versus practice exercises in reading*. New York: Bureau of Publications, Teachers College, Columbia University, 1946.

187. WHEAT, H. G., *Studies in arithmetic* (Summary of master's thesis). Morgantown: West Virginia University, 1945, chap. 5.

188. WHIPPLE, Gertrude, Desirable materials, facilities and resources for reading. *Reading in the elementary school*. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949, 147-171.

189. WILLIAMS, A. M., *Children's choices in science books*. New York: Bureau of Publications, Teachers College, Columbia University, 1939.

190. WITTY, Paul, *Reading in modern education*. Boston: D. C. Heath & Company, 1949.

191. ——— and Kopel, David, *Reading and the educative process*. Boston: Ginn and Company, 1939.

192. WOODS, E. I., A study of entering B1 children in the Los Angeles city schools. *J. Educ. Res.*, 1937, 21, 9-19.

193. WRIGHTSTONE, J. W., *Appraisal of growth in reading*, Educational Research Bulletin No. 2. New York: Board of Education of the City of New York, 1941.

194. ——— *Determining readiness in reading*, Educational Research Bulletin No. 6. New York: Board of Education of the City of New York, 1943.

195. YOAKAM, G. A., The place of textbooks in children's reading. *A report of the fourth annual conference on reading*, University, June 28-July 9, 1948. Pittsburgh: University of Pittsburgh, 1949, 65-75.

Index

- Ability, and school achievement, 2;
to participate in cooperative enter-
prises, 36; and grouping, 65;
and progress in reading, 77; scho-
lastic, *see* Intelligence; variation
in, *see* Individual differences; ap-
praisal of, *see* Appraisal; and
skills, *see* Skills; development of,
see Development
- Action words, 105
- Adams, Fay, 20, 76, 99, 154, 220,
241, 253, 260, 261, 263, 275, 282,
317, 319, 326, 327, 330, 331
- Adams, M. A., 323, 342
- Addy, M. L., 165, 331
- Adjustments, to school, 58; to physi-
cal status, 28, 59; to individual
differences, *see* Individual differ-
ences; and readiness for reading,
see Reading readiness; to needs,
see Individual differences; of
speed of reading, 15, 176-178; to
purposes and requirements of
reading, *see* Comprehension
- Adler, G. L., 244
- Almy, M. C., 331
- American Boy, 324
- American Girl, 324
- American Medical Association Rat-
ing Reading Card, 47-48
- Analysis, *see* Phonetic analysis,
Structural analysis, and also Word
recognition
- Announcements, 103
- Appraisal, of interests and attitudes,
51; of experience, 52; by teacher,
53-55; of progress in first grade,
123; of progress in second and
third grade, 239; of progress in
intermediate grades, 261; need of,
283-286; areas of, 286; by stand-
ardized tests, 287; by informal
tests, 289; by teacher observation,
291; use of questionnaires in, 292;
records and, 293; of level of read-
ing proficiency, 294; of word
recognition, 297; of vocabulary
growth, 299; of growth of com-
prehension, 300; of rate of read-
ing, 301; of study skills, 303; of
specialized reading skills, 305; of
oral reading, 306; of attitudes,
307; of reading interests and taste,
308; of books, 327
- Arbuthnot, M. H., 267, 325, 331
- Arithmetic, problems in reading,
258-259
- Arthur Point Scale of Performance
Test, 41
- Artley, A. S., 162, 331
- Aspects of comprehension, 174-
178
- Attention, and inattention, 78, tech-
niques for developing, 79-80
- Attitudes, 36, 97, 307
- Audiometers, 48-50
- Audio-visual aid, 326
- Auditory discrimination, in reading
readiness, *see* Reading readiness;
training in, 62; methods to im-
prove for word sounds, 63-64, in
beginning reading, 99

- Auditory factors, in reading readiness. 28
- Basic series of readers, 111, 117, 168, 226, 320-321
- Beery, Althea, 167, 331
- Betts, E. A., 20, 40, 44, 48, 49, 62, 63, 68, 76, 80, 99, 127, 140, 144, 145, 165, 201, 204, 206, 214, 289, 290, 324, 332
- Betts, T. M., 332
- Betzner, Jean, 332
- Blair, G. M., 49, 326, 332
- Bloomster, M., 93
- Bond, Eva, 3, 332
- Bond, G. L., 20, 28, 60, 76, 111, 112, 127, 154, 171, 193, 200, 204, 206, 208, 227, 237, 241, 244, 253, 254, 259, 263, 282, 289, 317, 332, 335
- Book of Children's Literature*, 326
- Book of Knowledge*, 325
- Book reading, preparation for, 114; transition to, 115; progress in, 117; developing independence in, 119
- Booklist: A Guide to New Books*, 326
- Brewton, J. E., 326
- Brewton, S. W., 326
- Bridges, L. H., 332
- Bristow, W. H., 76, 332
- Broom, M. E., 171, 220, 241, 263, 332
- Brown, B. D., 340
- Buckingham, R. B., 163, 332
- Bulletin board, 105
- Buros, O. K., 44, 313, 332
- Buswell, G. T., 14, 101, 332
- California Reading Test*, 314
- California Test of Mental Maturity*, 41
- Carmichael, L., 101, 333
- Cason, E. B., 15, 332, 335
- Chapman-Cook Speed of Reading Test*, 314
- Chart, to record appraisal of reading readiness, 54; to record evaluation of reading, 310; to plot reading profile, 311
- Chicago Reading Tests*, 314
- Children and Books*, 325
- Children's Catalogue*, 326
- Clarke, L. K., 319, 322, 332, 333
- Clement, J. A., 327, 333
- Clues, *see* Word recognition
- Colburn, E., 333
- Cole, Luella, 254, 257, 333
- Color blindness, tests for, 42-43
- Color experiences, 71
- Comics, and taste, 275; as hindrance to taste, 276; that favor progress in reading, 277; and guidance in reading, 277
- Comprehension, listening and reading, 173-174; breadth of, 174; degree of, 175; rate of, 176; versatility in, 178; and experience, 178; developing, 180; of sentences and paragraphs, 181; skills, 183 f., *see also* Comprehension skills; appraisal of growth of, 300-303
- Comprehension skills, skimming, 183; apprehending the main idea, 186; following and predicting sequence of events, 187; apprehension of details, 187; following directions, 188; generalizing, 189; critical evaluation, 190, 247; in social studies, 254
- Compton's Pictured Encyclopedia*, 247, 325
- Concepts, changing in relation to current practice, 7; in reading process, 10; meaningful, 32, 67, 157, 172, 217, 222, 233; in history content, 254; in geography, 256; in science, 257; in arithmetic, 258
- Conclusions, drawing, 189
- Content reading, introduction to, 230; progress in, 250; teaching, 252; social studies, 253 f.; history, 253; science, 257
- Context clues, *see* Verbal context clues and Picture clues
- Cook, D., 326
- Cook, W. W., 200, 333
- Coomer, Ann, 309
- Coördination of word recognition techniques, 94
- Critical evaluation, 190
- Curdy, M. C., 244
- Current Events*, 323
- Curtis, J. F., 260, 337

- Dahl, L. A., 50, 333
 Dale, Edgar, 327, 333
 Dearborn, W. F., 101, 333
Dearborn First-Grade Tests of Intelligence, 40
 Denecke, L., 277, 333
 Deputy, E. C., 25, 333
 Desire to read, 74
 Details, apprehending, 187
 Determining readiness for reading, use of intelligence tests for, 39-42; color blindness and, 42; use of reading readiness tests for, 43-47; appraisal of visual efficiency for, 47; appraisal of auditory efficiency for, 48-50; by teacher appraisal of emotional and social adjustment, 50; by teacher appraisal of interests and attitudes, 51; by teacher appraisal of experience, 52; chart for recording, 54; formulating an appraisal in, 55
Detroit First-Grade Intelligence Test, 40
Detroit Reading Tests, 314
Detroit Word Recognition Test, 314
 Developing reading readiness, personal and social adjustment for, 58; by training in visual discrimination, 60-62; by training in auditory discrimination, 62-64; through use of test results and teacher ratings, 64-69; by grouping for instruction, 65-66; guides in instruction for, 66; by providing experience and information, 67-69; by developing language facility, 69-71; by training to read pictures, 72; by training in left-to-right progress, 73; by stimulating a desire to read, 74; appropriate materials for, 75
 Development, personal and social, 35; of reading readiness, 57 f.; of language facility, 69-71; of sight vocabulary, 86-90; of word meanings, 90, 156; of word recognition, 129 f.; of comprehension, 180
 Developmental sequence, 11-13, 98, 148, 150, 153, 169
 Diagnostic Examination of Silent Reading Abilities, 314
 Dice, L. K., 333
 Dictionary use, 94, 147, 324
 Disability, *see* Remedial reading
 Discrimination, auditory, 29, 131; visual, 30, 131; color, 31; of word forms and letters, 61; of word sounds, 63
 Discussion, to improve language facility, 70; to profit from experience, 160
 Dolch, E. W., 76, 78, 80, 81, 87, 90, 93, 100, 127, 144, 145, 155, 212, 220, 224, 241, 332, 333
Dolch Basic Sight Word Test, 314
 Dunklin, H. T., 197, 333
 Durrell, D. D., 29, 163, 165, 178, 179, 180, 184, 192, 193, 206, 208, 220, 334
Durrell Analysis of Reading Difficulty, 314
Durrell-Sullivan Reading Capacity and Achievement Tests, 314
Eames Eye Test, 48
 Edman, M., 327, 334
 Emotional factors, and reading readiness, 35, 51, 58; and oral reading, 123, 237; and taste, 268
 Encyclopedias as reference materials, 247, 325
 Evaluation and organization, 247
 Experience, and language development in reading readiness, *see* Reading readiness; and language facility, 34; providing a background of, 67; and meanings, 68; programs, 68; first-hand, 159; vicarious, 159; rôle of planning and discussion in, 160
 Experience charts, initial use of, 107; requirements in constructing, 108; limitations of, 108; and sight vocabulary, 109; suggested rôle for, 109-110
 Experience units, 109, 204, 225
 Eye movements, 15, 177
 Factors in reading readiness, *see* Reading readiness
 Fallon, M. E., 22, 334
 Fendrick, P. A., 44, 60, 334

- First grade, administrative problems in, 80-83; postponement of reading in, 81; promotion policies, 82; the reading program in, 83-84; reading readiness program in, 84-85; sight vocabulary in, 86-90; word meanings in, 90; word recognition in, 91-94; organization for teaching in, 96-99; methods in, 99-104; introduction to reading, 104-106; experience charts, 106-110; topical units and basic instruction, 111; preparation for book reading in, 114-117; progress in book reading, 117-122; teaching oral and silent reading in, 122-123; appraisal of progress in, 123-124; achievement to expect in, 125; basic nature of reading in, 126
- Following directions, 188
- Functional reading, 183
- Gans, Roma, 9, 20, 190, 282, 334
- Garvey Primary Reading Test, 314
- Gates, A. I., 20, 26, 27, 28, 32, 43, 44, 55, 67, 69, 76, 163, 165, 173, 178, 192, 193, 208, 214, 220, 334, 335
- Gates Advanced Primary Reading Test, 314
- Gates Basic Reading Tests, 314
- Gates Primary Reading Test, 314
- Gates Reading Diagnostic Tests, 315
- Gates Reading Readiness Tests, 44
- Gates Reading Survey, 315
- Generalizing or drawing conclusions, 189
- Geography, problems in reading, 256
- Giles, R., 326
- Golden Dictionary, 324
- Goldstein, H., 173, 335
- Grade placement, of word analysis techniques, 153
- Gray, Lillian, 20, 76, 99, 154, 220, 241, 253, 260, 261, 263, 275, 282, 317, 319, 326, 327, 330, 331
- Gray, W. S., 4, 7, 129, 136, 145, 147, 148, 155, 158, 163, 213, 231, 250, 251, 253, 256, 257, 289, 326, 335, 336
- Gray Standardized Oral Reading Check Tests, 315
- Gray Standardized Oral Reading Paragraph Test, 315
- Grouping, for teaching readiness, *see* Developing reading readiness; to provide for individual differences, 201; flexibility of, 202; number of groups in, 203; size of groups, 203; unwise practices in, 204
- Guidebooks, 121
- Haefner, R., 162, 336
- Hall, W. E., 44, 339
- Hamilton, J. A., 15, 336
- Handedness, 32; *see* Reading readiness and lateral dominance
- Handlan, B., 112, 200, 204, 206, 208, 332
- Harris, A. J., 9, 21, 26, 35, 40, 44, 76, 165, 166, 171, 178, 182, 184, 192, 193, 201, 203, 206, 208, 214, 216, 220, 289, 317, 336
- Harrison, M. L., 10, 26, 37, 40, 44, 76, 336
- Hayakawa, S. I., 166, 336
- Hearing deficiencies and speech in reading readiness, 29
- Henig, M. S., 50, 336
- Hildreth, Gertrude, 22, 24, 30, 40, 43, 44, 62, 64, 68, 76, 77, 102, 112, 118, 127, 225, 226, 229, 231, 234, 236, 240, 241, 309, 336, 337
- Hilliard, G. H., 33, 337
- History, problems in reading, 253-256
- Hollowell, Lillian, 326, 337
- Holmes, E., 158, 163, 336
- Hopf, H. A., 274, 338
- Horn, E., 253, 260, 323, 337
- Horn Book Magazine, 326
- Independence in reading, 98, 235
- Indexes, 246
- Index to Children's Poetry, 326
- Individual differences, in reading ability, 13, 195-197; in reading readiness, 22; causes of in reading, 197; providing for, 198-205; special problems in, 204

- Information, selecting relevant, 247;
see also Study skills
- Instruction, *see* Reading instruction
- Intelligence, as a factor in reading
 readiness, 24-27; tests of, 39-42
- Intelligence quotient, 40
- Interest, in reading, 97; and moti-
 vation, 264; patterns of, 265; ob-
 jectives in developing, 280
- Intermediate grades, instructional
 program in, 243; basic reading in-
 struction in, 243; continuation of
 developmental program in, 244-
 245; study skills in, 246-248; read-
 ing content subjects in, 250-259;
 oral reading in, 259; appraisal of
 progress in, 261
- Iowa Elementary Teachers Hand-
 book*, 55, 63, 76, 80, 128, 289, 337
- Iowa Every-Pupil Tests of Basic
 Skills*, 315
- Iowa Silent Reading Test*, 315
- Johnston, P. W., 101, 333
- Junior Britannica*, 325
- Junior Scholastic*, 324
- Kelty, M. G., 254, 337
- Kinder, J. S., 337
- Kindergarten and development of
 reading readiness, 57
- Kirk, S. A., 204, 220, 337
- Kopel, D., 32, 273, 309, 342
- Kottmeyer, W., 337
- Krantz, L. L., 163, 337
- Kuhlmann-Anderson Intelligence
 Test*, 40
- Kyte, G. C., 163, 337
- Labels, use of, 104
- Lamoreaux, Lillian, 337
- Langston, R. G., 163, 337
- Language arts, 6-7
- Language, development and experi-
 ence, 32-34
- Language facility, development of,
 69; discussion to improve, 70
- Lateral dominance in reading readi-
 ness, 32
- Lazar, May, 206, 270, 282, 321, 337,
 338
- Learning to read and reading to
 learn, 9
- Lee, D. M., 3, 337, 338
- Lee, I. J., 166, 338
- Lee-Clark Reading Readiness Test*,
 45
- Left-to-right orientation, 71, 73, 124,
 212
- Letters, learning names of, 121
- Lewis, N., 15, 338
- Library, corner, 119, 228; rôle of,
 318
- Lima, M., 273, 341
- Link, H. C., 274, 338
- Lorge, I., 341
- Los Angeles Elementary Reading
 Tests*, 315
- Los Angeles Primary Reading Test*,
 315
- Magazines, 323
- Main idea, apprehending, 186
- Maltet, M. S., 122, 338
- Manweller Word Recognition Test*,
 315
- Materials, 75, 98, 120, 225-231; in
 history content, 254; to develop
 interests and tastes, 270; for read-
 ing, 318 f.
- Materials for reading, deficiencies
 in, 318; types of, 319; desirable
 characteristics of, 320; for basic
 instruction, 320; supplementary
 practice, 321; in content field, 322;
 newspapers and magazines as,
 323; dictionaries as aids to, 324;
 reference, 325; sources of infor-
 mation on books, 325; audio-
 visual aids as, 326; appraisal and
 choice of books in, 327; methods
 of evaluation, 328; miscellaneous,
 329
- McCullough, C. M., 162, 165, 182,
 253, 338
- McDade, J. E., 101, 338
- McGehee, W. R., 254
- McGlade, C. A., 44, 334
- McKee, P., 7, 10, 21, 62, 68, 76,
 93, 128, 151, 182, 192, 191, 224,

- McKee, P., (*cont.*)
 232, 235, 240, 241, 246, 247, 248,
 263, 282, 338
- Meaning vocabulary, relation to
 word recognition, 131; develop-
 ment of, 157; experience and, 159;
 and wide reading, 161; teaching,
 163; methods of teaching, 165; in
 content subjects, 250 f.
- Measurement, *see* Appraisal
- Mechanics, *see* Word recognition
 and also Oral reading
- Mental age, to begin reading, 27;
 definition of, 40; use of, 41-42
- Mental tests, 39-42
- Metropolitan Readiness Tests*, 45
- Metropolitan Reading Tests*, 315
- Mitchell, M. A., 338
- Monroe, Marion, 24, 25, 31, 59, 68,
 76, 338
- Monroe Diagnostic Reading Exami-
 nation*, 315
- Monroe Reading Aptitude Tests*, 45
- Monroe Standardized Silent Read-
 ing Tests*, 315
- Morphet, M. V., 25, 338
- Morrison, H. B., 322, 338
- Murphy, H. A., 30, 334
- My Weekly Reader*, 323
- National Opinion Research Center,
 338
- Nelson Silent Reading Test*, 315
- Newspapers, 323
- Oral reading, and silent reading, 14,
 101, 122, 218; in beginning read-
 ing, 101, 122; paragraphs, 213; in
 primary grades, 236; in intermedi-
 ate grades, 259
- Organization, as a study skill, 247;
 for teaching, 96
- Personal and social development,
 and emotional stability, 35; and
 self reliance, 35; and ability to
 participate in coöperative enter-
 prises, 36; and attitudes toward
 reading, 36; for reading readiness,
 58
- Phipps, W. R., 339
- Phonetic analysis, 93, 100, 140-145;
 time to begin, 93, 141; grade
 placement, 153; sequential pro-
 gram, 150-153; in primary grades,
 232; in intermediate grades, 244;
see also Word recognition
- Phonetic families, 143
- Phonograms, 143, 144
- Physical deficiencies, adjustments
 for, 59-60
- Picture, clues, 92; interpretation of
 reading, 72, 255, 257; dictionaries,
 94, 324; illustrations and appraisal
 of books, 329
- Picture Dictionary for Boys and
 Girls*, 324
- Picture Dictionary for Children*, 324
- Pintrich-Cunningham Primary Test*,
 40
- Popular Mechanics*, 324
- Popular Science Monthly*, 324
- Postponement of reading, 81
- Potter, W. R., 339
- Pratt, M., 112, 339
- Pratt, W. E., 339
- Preparation for book reading, 114-
 117
- Pressey, L. C., 254, 339
- Pressey, S. L., 254, 339
- Pressey Diagnostic Reading Tests*,
 315
- Pressey Diagnostic Vocabulary Test*,
 316
- Preston, R. C., 253, 323, 339
- Primary grades, *see* First grade, and
 also Second and third grade
- Pritchard, M. C., 335
- Profile for reading achievement, 311
- Progress in book reading, 117-122
- Promotion policies, in first grade,
 82; and individual differences, 200
- Pseudo-Isochromatic Plates for Test-
 ing Color Perception*, 43
- Purposeful reading, 12, 15, 98
- Rainbow Dictionary*, 324
- Rankin, Marie, 273, 339
- Rate of comprehension, 15; factors
 influencing, 176-177; vs. speed of
 reading, 176
- Reader we wish to develop, 16-18

Readers Guide, 184, 246

Reading, importance of, 1-6; nature of, 6-11; changing concepts of, 7; definition of, 9-11; steps in learning, 11-13; comprehension and speed in, 14-16; readiness, *see* Reading readiness; speed of, 15, 176; individual differences in, 13, 195; remedial, 207 f.; disability, 207-210; in varied situations, 224 f.; beyond sixth grade, 262; interests, 264-266; tastes, 266 f.; appraisal of growth in, 283 f.; appraisal of specialized skills in, 305; record form, 310

Reading instruction, general, 11-19; mental age and, 25; adapting to individuals, 194 f.; adjusting to physical status, 28; postponement of, 81; in first grade, *see* First grade; in second and third grade, *see* Second and third grade; in groups, 78, 201, 223; flexibility of, 103; in intermediate grades, *see* Intermediate grades; in content subjects, 252; objectives in, 16-18, 83, 125, 222, 242-243, 280

Reading in High School and College, 339

Reading in the Elementary School, 339

Reading readiness, nature of, 22 f.; variation in, 22-23; factors influencing, 24; and intelligence, 24-27; and chronological age, 27; auditory factors in, 28; hearing deficiencies and speech in, 29; and auditory discrimination, 29; visual factors in, 30; and visual discrimination, 30; and color discrimination, 31; speech factors in, 31; and lateral dominance, 32; experience and language development in, 32-34; personal and social development in, 35-37; beyond the first grade, 37; determining, 39 f.; tests, 43-47; development of, 57 f.; and individual differences, 199

Reading to learn, 9, 99

Recognition, *see* Word recognition

Records, 54, 293, 309, 310

Reese, Dora, 20, 76, 99, 154, 220, 241, 253, 260, 261, 263, 275, 282, 317, 319, 326, 327, 330, 331

Reference books, 246-247

Remedial reading, and individual differences, 198; severe disability and, 207; and minor difficulties, 209; understanding the child and, 209; when to do, 210; specific difficulties to consider in, 211-218; for sight vocabulary, 211; for perceptual orientation, 212; for word recognition, 213-216; for phrasing, 216; for word meanings, 217; for comprehension, 218; for oral and silent reading, 218

Report of the National Committee on reading, 339

Rinsland, H. D., 339

Robinson, F. P., 44, 339

Rossignol, L. J., 339

Rue, Eloise, 326

Russell, D. H., 21, 76, 155, 171, 196, 203, 206, 243, 263, 265, 273, 275, 276, 282, 317, 321, 327, 335, 339

Science, in third grade, 230; problems in reading, 257-258

Scott, C. M., 57, 339

Script text, 106, 225

Seashore, R. H., 168, 340

Seatwork, 223

Second and third grade, reading goals in primary grades, 222; organizing reading program in, 223; group instruction and seatwork in, 223; varied reading situations in, 224-231; continuing growth in fundamental skills in, 231-236; oral reading in, 236-239; evaluation of progress in, 239-240

Seder, M., 341

Seegers, J. C., 168, 340

Semantics, 166

Sequence of events, following and predicting, 187

Sievers, C. H., 15, 340

Sight vocabulary, development in grade one, 86-90; Dolch basic, 87-88; Dolch list of 95 common nouns, 89; deficiency in, 211

- Silent reading, 14, 101, 122
Silent Reading Comprehension: Iowa Every-Pupil Tests of Basic Skills, 316
 Skills, fundamental, 127, 207, 221-222, 231; recognition, 129, 213; comprehension, 182, 218, 234, 245, 257; phrasing, 216; study, 246, 248, 257, 303
 Skimming, 183
 Smith, D. V., 4, 267, 271, 273, 275, 276, 282, 326, 340
 Smith, N. B., 24, 340
 Snelling Chart, 47-48
 Social studies, in third grade, 230; problems in reading, 253; history, 253; geography, 256
 Speech factors in reading readiness, 31
 Speed of reading, 15, 176
 Sprache, G., 326, 340
SRA Reading Record, 316
Stanford Achievement Test: Reading, 316
Stanford-Binet Intelligence Test, 41
 Stephenson, O. W., 254, 340
 Stone, C. R., 76, 81, 87, 99, 102, 128, 155, 163, 220, 241, 317, 340
Stone-Grover Classification Test for Beginners in Reading, 45
Stone Narrative Silent Reading Tests, 316
Stone-Webster Test in Beginning Reading, 316
 Storm, G. E., 112, 327, 340
 Strang, R. M., 165, 182, 253, 276, 338, 340
 Structural analysis, 93, 145, 147
 Study skills, in primary grades, 230; need for, 246; program in intermediate grades, 246-248; appraisal of, 303
Subject Index to Books for Intermediate Grades, 326
Subject Index to Books for Primary Grades, 326
 Subject matter fields, *see* Content reading
 Sullivan, H. B., 29, 334
 Supplementary readers, 227
 Supplementary reading materials, 120, 225-229, 321
 Swenson, E. J., 252, 340
 Syllabification, 143, 147
 Symbols, printed words as, 33; in arithmetic, 258
 Taste in reading, nature of, 266; factors promoting growth in, 269; and facilities, 271; techniques of guidance for, 272; level of, 273; reading comics and, 275-279; sequential program in, 279; objectives for, 280
Teaching of Reading, 341
 Terman, L. M., 273, 341
Test of Study Skills, 316
 Tests, intelligence, 39-42; color blindness, 42-43; reading readiness, 43-47; of visual efficiency, 47-48; of auditory efficiency, 48-49; reading, 266 f.; selection of, 312; list of reading, 313 f.
Tests for Color Blindness, Visual Acuity, Astigmatism, 43
 Thinking in reading, 10, 103, 259
 Thorndike, E. L., 163, 181, 341
 Thorndike, R. L., 341
Thorndike-Century Beginning Dictionary, 325
Thorndike-Century Junior Dictionary, 325
 Tinker, M. A., 15, 16, 176, 177, 341
 Topical units, 111
 Townsend, A., 341
 Transition from primary to intermediate grade reading, 230
 Traxler, A. E., 2, 164, 165, 182, 253, 289, 313, 338, 341
Traxler Silent Reading Test, 316
 Troxell, E., 33, 337

Unit Scales of Attainment in Reading, 316
 University of Minnesota Elementary Demonstration School Faculty, 112, 128, 204, 341

Van Wagenen Reading Readiness Test, 45
 Verbal context clues, 92, 135

- Visual aids, 326
 Visual discrimination, in reading readiness, 30; training in, 60; in beginning reading, 99
 Visual factors in reading readiness, 30
Visual Sensation and Perception Tests, 48
 Vocabulary, meaning, 157; specialized, 164; controled, 166-169; sight, 86-90; and concepts, 233; new steps in program, 245; in history, 253; in science, 257; in arithmetic, 258; appraisal of, 299
- Wagner, Eva B., 20, 76, 111, 112, 127, 171, 193, 227, 237, 241, 253, 254, 259, 263, 282, 289, 317, 332
 Washburne, C., 25, 338
Webster's Elementary Dictionary, 324
 Wesley, E. B., 253, 323, 342
 West, D., 326
 Westover, F. L., 15, 342
 Wheat, H. G., 258, 342
 Whipple, Gertrude, 251, 318, 319, 320, 322, 326, 327, 328, 330, 336, 342
 Wide reading, 161, 254, 269
- Williams, A. M., 342
Williams Reading Tests, 316
Winston Dictionary for Children, 325
 Wise, K., 244
 Witty, P., 32, 68, 76, 168, 171, 265, 273, 282, 289, 309, 317, 342
 Woods, E. I., 25, 342
 Word analysis, *see* Phonetic analysis
 Word-form clues, 92, 138
 Word identification and recognition, 91-94, 129 f., 149, 232, 244, 297
 Word meanings, 90, 156 f., 163, 169
 Word recognition, importance of, 129; factors in developing, 131; clues and techniques in, 132-148; sequential program in, 148-153; deficiency in, 213; in grades two and three, 232; in intermediate grades, 244
 Workbooks, 121, 229, 320
World Almanac, 247, 325
World Book Encyclopedia, 247, 325
 Wrightstone, J. W., 44, 76, 289, 317, 342
- Yoakam, G. A., 168, 342
Young America, 324
Young Citizen, 323